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Alexander B. Grannis
Commissioner

October 15, 2008

Mr. Joseph Gabriel
North Pastoria Environmental Corporation, Inc.
3800 Dewey Avenue #317
Rochester, New York 14616

RE: Sterling Site #3 (No. 4-42-011)
Operable Units 1 and 2
Order on Consent Index # A4-0404-9911

Dear Mr. Gabriel:

The New York State Department of Environmental Conservation (the Department) is in receipt of and has reviewed the following correspondence and documents submitted by NPEC, Inc. concerning the above referenced site:

- Biennial Groundwater Sampling Program, June 2008
  Sterling Site 3

- Focused Feasibility Study Report
  Sterling Site 3, OU-02, September 2008

The Department has the following comments and responses based upon it's review of the above documents and prior correspondence:

Operable Units - 01 and 02

Based upon the review of the June 2008, Biennial Groundwater Sampling Program Report and previously submitted monitoring data, the Department is requesting that NPEC perform a round of groundwater sample collection and analysis for both site related VOCs and for specific SVOCs during the next scheduled event. The SVOC analysis should utilize a valid methodology that will both positively identify and quantify the pharmaceutical compounds which have been reported to be tentatively identified compounds (TICs) based upon the SW-846 8270 method. Some of the semi-volatile compounds previously tentatively identified include:

talbutal	lidocaine	hexobarbital	pentazocine
mephobarbital	phenobarbital	cyclobarbital	mepivacaine

Samples should be collected from the all monitoring points located within OU-02 (all wells west of Papscanee Creek) and from a select number of points within the landfill source area.

Operable Unit - 01 Landfill Cap

In accordance with the Department's letter of May 12, 2008, NPEC was directed to implement the remedy for OU-01 pursuant to the Record of Decision of March 1992. The ROD calls for source containment by capping of the landfill. Now that the data collection activities to further delineate the fill materials at OU1 have been completed as per the Final Remedial Design Report and CRA Work Plan of 9/8/08, NPEC needs to update the remedial designs for the impermeable cover as appropriate and resubmit them for Department approval. Additionally, the approved schedule for the completion of the impermeable cover system which was presented as Attachment 2 of NPEC's November 30, 2007 letter should be adhered to in the future. The next monthly progress report should specifically address the status of the various tasks, including 1, 2, and 3 of the approved schedule.

Operable Unit - 01 Groundwater Treatment System

The Department feels that a decision to consider permanently discontinuing the ability to extract and treat groundwater cannot be justified at this time based upon the review of the June 2008, Biennial Groundwater Sampling Program report. NPEC should continue to perform the required monitoring and reporting in accordance with the established programs. Future monitoring results will be evaluated in relation to contaminant migration and the need for hydraulic control and groundwater treatment.

Operable Unit - 02

The Department has reviewed the revised Focused Feasibility Study (FFS) for OU-02. The revised document does not adequately address and incorporate the Department's prior comments and thus in it's present revision cannot be approved. Some of the items previously noted by the Department that were not adequately addressed in the document include:

- the specific requirements of the proprietary controls, such as an easement or covenant, made between themselves and the impacted nearby property owners. These controls must include at a minimum the following items:
    - provide for the continued ability to conduct monitoring of the various site media including soil, soil vapor and groundwater;
    - provide for the ability to remediate the property utilizing active remediation if warranted;
    - that in the event of development of the impacted property, then NPEC will provide for the continued evaluation of the potential for vapor intrusion for any buildings developed on the property, including provisions for mitigating any impacts identified; and
    - if groundwater is to be utilized on the developed property for drinking water, then

provide the necessary water quality treatment as determined by NYSDOH for the contaminants of concern or another acceptable water supply alternative.

- the NYSDOH Part 5 Drinking Water UOC standard for ethyl ether of 50 ug/l is not included as an ARAR and a remedial action objective for the site.

- the FFS contradicts itself in a number of places in regards to Alternative G3, Monitored Natural Attenuation. Section 3.2 states that the most important natural attenuation process for the ethyl ether contamination is biodegradation, however Section 3.2.2 states that the most important mechanisms are mechanical and physical.

- the FFS cites MNA as an active groundwater remedial treatment alternative in Section 7.7. The weight of evidence evaluation indicates that without proactive enhancement (chemical supplements, hydraulic controls, ect) the natural attenuation processes will not remediate the contaminant of concern (ethyl ether) at the site within a reasonable time frame. Thus, the Department does not consider MNA as an active remedial action at OU-02.

The Department is not requiring further revision of the FFS. The study will be utilized in it's present form, along with other site documents to develop the Department's Proposed Remedial Action Plan (PRAP) for OU-02.

If you should have any questions or comments please do not hesitate to contact me at the above number.

Sincerely,

Randy Hough

Randy Hough
Project Manager
Remedial Bureau B
Division of Environmental Remediation

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FOCUSED FEASIBILITY STUDY REPORT
STERLING SITE 3
EAST GREENBUSH, NEW YORK

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1.0 INTRODUCTION

1.1 GENERAL

The Focused Feasibility Study (FFS) presented herein has been prepared to assess various groundwater remedial alternatives for Operable Unit 2 (OU2) at the Sterling Drug Inc. (Sterling) Site 3 (Site) which is located in East Greenbush, Rensselaer County, New York. The Site location is presented on Figure 1.1. The Site is approximately seven acres in size and was used as a disposal area from 1956 to 1977. Waste disposal activities led to contamination of soil and groundwater at the Site. Remedial activities were implemented beginning in 1989 and continue to date. A Site Record of Decision (ROD) dated March 31, 1992 defined two areas of potential concern for the Site known as Operable Unit 1 (OU1) and OU2. OU1 includes the on-Site soils and groundwater managed by the current remedial activities. OU2 includes the off-property portion of the Site groundwater contaminant plume of ethyl ether. The 1992 ROD applies to the on-Site soils and groundwater within OU1.

1.2 ORGANIZATION OF THE FFS

The FFS is organized as follows:

- Section 1.0: Introduction

  Presents background information relevant to this FFS and outlines the organization of this FFS.

- Section 2.0: Site Characterization

  Presents a brief summary of the nature and extent of the contamination due to the historical operations at the Site.

- Section 3.0: Natural Attenuation Evaluation

  Presents a preliminary evaluation of natural attenuation (NA) characteristics in the groundwater beneath the Site.

- Section 4.0: Risk Assessment

  Presents a brief summary of the human health risk assessment for the potential future utilization of the off property groundwater (OU2) for a hypothetical residential use scenario.

- Section 5.0: Identification and Screening of Remedial Technologies

  Identifies remedial action goals and objectives, general remedial response actions and associated remedial technologies; summarizes the initial screening of remedial technologies.

- Section 6.0: Development and Screening of Remedial Alternatives

  Combines technologies retained after screening of technologies in Section 5.0 into various alternatives; provides an initial screening of the assembled alternatives.

- Section 7.0: Detailed Analysis of Retained Remedial Alternatives

  Presents a detailed and comparative analysis of the retained remedial alternatives.

- Section 8.0: Preferred Remedial Alternative

  Identifies the preferred alternatives for the Site.

2.0 SITE CHARACTERIZATION

2.1 SITE DESCRIPTION

The Site is a 7-acre area located on Riverside Avenue, East Greenbush, in Rensselaer County, New York. The Site is located between Papscanee Creek and the Conrail railway tracks. The Site location is shown on Figure 1.1. The Site is vegetated and relatively flat, and the Site is situated within the 100-year flood plain of the Hudson River. The Hudson River is located 500 feet southwest of the Site. Following closure of operations by Sterling in 1977, remedial efforts were undertaken to address soil and groundwater contamination. As defined in the ROD, two distinct areas (OU1 and OU2) were noted as areas of potential concern. OU1 includes the closed landfill, and on-Site soils and groundwater, and OU2 includes the off-property portion of the groundwater contaminant plume of ethyl ether located northwest of the landfill. Land use in the surrounding areas is mainly for agricultural purposes with some residential areas approximately 3/4 of a mile to the northeast of the Site. There is no current use of groundwater as a source of drinking water, and the groundwater is considered non-potable due to elevated levels of naturally occurring inorganics (iron, etc). There are no known water wells downgradient of the Site based upon a search of the Water Well Information on the NYSDEC web site (http://www.dec.state.ny.us/cfmx/extapps/WaterWell/; NYSDEC, 2006).

2.2 GENERAL SITE USE

Between 1956 and 1977, the Site was used by Sterling for the disposal of waste materials. Company records indicated that disposed wastes in OU1 included pharmaceutical intermediates, finished pharmaceutical products, Sterling Winthrop Research Institute waste, filter cakes, solvents, still bottoms, motor and lubricating oils, and wood. In 1977, the Site was covered with sandy clay and gravel and closed, and has remained inactive since that time.

2.3 PREVIOUS INVESTIGATIONS

The Site has been the subject of ongoing investigations and remedial activities since 1982. Results from previous investigations identified volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) as the primary contaminants in Site soils and groundwater. Several remedial activities have been implemented at the Site, beginning with the removal of 8,452 buried drums from OU1

between 1989 to 1990. Many of these drums were empty; however, some also contained product. Following the removal of the drums, additional investigations were conducted to determine the extent of remaining contamination on Site. The Vacuum Extraction (VE) System and groundwater pump and treat system were installed in accordance with the Site ROD. The Air Sparging System was installed voluntarily, with the approval and oversight of the NYSDEC, as a further enhancement to source removal prior to capping the landfill. The VE System commenced full-scale operation in December 1994 to address contaminants in the fill/soil within OU1. The Groundwater Treatment System (GWTS) was commissioned in May 1996 to address groundwater immediately downgradient of OU1. The Air Sparging System has been operated since July 2000 to address groundwater within the hot spot areas of OU1. These systems are currently operating and have been effectively reducing the contaminant levels within the landfill. In addition, an impermeable cap, which has been designed, will be placed over the landfill following the evaluation of the completed treatment systems. The OU2 off-property groundwater plume is presently being monitored.

2.4 NATURE AND EXTENT OF CONTAMINATION

Previous Site investigations indicated that the subsurface within OU1 consists of approximately 8 feet of a heterogeneous mixture of silt, sand, and clay fill underlain by 6 feet of lower permeability silt, silty clay, and clayey silt. The upper layer was characterized as being mixed with waste products such as glass vials, flasks, wood, garbage, drainage pipes, needles, and also the drums mentioned previously, which have been excavated from this area during remedial activities between 1989 and 1990. Following drum removal, sampling conducted at the Site indicated the presence of several "hot spots" in OU1 composed of VOCs, which have been, and continue to be, addressed by the VE System. The primary contaminants of concern at OU1 included benzene, toluene, acetone, ethyl ether, 1,2-dichloroethane, trichloroethylene, and chloroform. In addition, a groundwater plume, consisting of ethyl ether has been detected. The Site GWTS intercepted impacted groundwater downgradient of the source area OU1, and the treated effluent from the GWTS was discharged back into the groundwater west of Papscanee Creek and appears to be a contributor to the ethyl ether plume in OU2. The ethyl ether plume extends to the northwest of OU1 and is approximately 2,400 feet long and 750 feet wide. The GWTS was not designed to treat ethyl ether and ceased operations in March 2007 due to mechanical failures. Monitoring of the OU2 groundwater wells is currently being conducted.

2.5 GROUNDWATER HYDROGEOLOGY

Three water-bearing zones have been identified in the vicinity of the Site. The water-bearing zones from shallowest to deepest are: Upper Unconsolidated Aquifer (at a depth of 10 to 90 feet); Lower Unconsolidated Aquifer (at a depth of 80 to 100 feet); and the Bedrock Aquifer (at a depth of 45 to 120 feet). The Upper Unconsolidated Aquifer has been impacted by the Site. The upper portion of the Upper Unconsolidated Aquifer has higher observed concentrations of ethyl ether than the lower portions of the Upper Unconsolidated Aquifer. The Bedrock Aquifer appears to have not been impacted by ethyl ether. Groundwater flow in the Upper Unconsolidated Aquifer is controlled by a geologic trough and flows towards the Hudson River in a northwest direction. Groundwater in the vicinity of the Site contains naturally elevated iron and manganese concentrations, which discourages its use as a drinking water source.

2.6 GROUNDWATER

Groundwater moves directly toward the Hudson River 500 feet away from the Site and surface water runoff from the Site moves directly toward the Papscanee Creek. Previous investigations have identified benzene, toluene, ethyl ether, methylene chloride, acetone, methyl thiophene, 1,2-dichloroethane, trichloroethylene, and chloroform as the primary chemicals of concern in OU1 groundwater. Concentrations were typically 1 to 2 orders of magnitude higher than the corresponding groundwater remediation goals. However, the groundwater treatment system has been effective in reducing the levels of the majority of these contaminants in OU1. During investigations, a groundwater plume consisting primarily of ethyl ether was identified to migrate from the former landfill area to off-Site agricultural land. This area has been defined as OU2. The OU2 groundwater sampling locations are shown on Figure 2.1. Groundwater in OU2 has been monitored under the Site semi-annual and biennial groundwater sampling program. Groundwater elevations from June 2006 are presented on Figure 2.2.

Investigation of the OU2 groundwater plume between 2001 and 2005 has shown that the levels of the majority of primary chemicals within OU2 are either not detected, or have been reduced to below detection levels, with the exception of ethyl ether, which still remains above the original groundwater cleanup objectives. Ethyl ether is the only organic constituent that is detected on a consistent basis to the west of Papscanee Creek. Detected VOCs and SVOCs from 1997 to 2006 are presented on Figure 2.3.

3.0 NATURAL ATTENUATION EVALUATION

3.1 INTRODUCTION

This section presents the results of a preliminary evaluation of natural attenuation (NA) characteristics in the groundwater beneath the Site. The purpose of this evaluation was to review evidence for increased biological activity in the groundwater at the Site, indicating the occurrence of biodegradation of the Site-related compounds, benzene and ethyl ether.

The NA evaluation involved the collection of groundwater samples from select upgradient, Site source area (OU1), and downgradient (OU2) monitoring wells for the analyses of natural attenuation indicator parameters. A list of the natural attenuation indicator parameters is presented in Section 3.5. The natural attenuation indicator parameters include a suite of geochemical and oxidation-reduction (redox) reaction indicator parameters, along with biodegradation parameters, that were evaluated to assess the occurrence of biodegradation processes in groundwater beneath and downgradient from the Site. The groundwater samples for analysis of the natural attenuation indicator parameters were collected using Snap Sampler™ sampling techniques to ensure that the groundwater samples were representative of groundwater flowing within the formation. A description of the natural attenuation indicator parameter sampling event is presented in Section 3.4.

The NA evaluation is based on the approach presented in the United States Environmental Protection Agency's (USEPA's) "Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water" (Technical Protocol) (U.S. EPA, 1998) and the Technical Protocol for Implementing Intrinsic Remediation with Long-Term Monitoring for Natural Attenuation of Fuel Contamination Dissolved in Groundwater (AFCEE, 1999). The NA evaluation consisted of evaluating the natural attenuation indicator parameter data, in conjunction with the detected concentrations of VOCs in groundwater, for evidence supporting the occurrence of biodegradation processes. A weight-of–evidence approach was applied where converging lines of evidence are identified to demonstrate the occurrence of natural attenuation processes.

3.2 BACKGROUND ON NATURAL ATTENUATION PROCESSES

Natural attenuation refers to naturally occurring processes in soil and groundwater environments that act without human intervention to reduce the mass, toxicity, mobility, volume or concentration of contaminants in those media. These in situ

processes include biodegradation, dispersion, dilution, adsorption, volatilization, and chemical or biological stabilization or destruction of contaminants.

Natural attenuation processes are classified as destructive and non-destructive. Destructive natural attenuation processes result in a reduction in contaminant mass. Destructive natural attenuation processes consist of biological degradation (where, naturally occurring microorganisms indigenous to the subsurface, break down or degrade contaminant compounds into less toxic or nontoxic compounds), and chemical degradation (where contaminants chemically break down, or degrade into less toxic or nontoxic compounds). Non-destructive natural attenuation processes result in a reduction in contaminant concentrations. Non-destructive natural attenuation processes consist of advection (contaminant spreading due to groundwater flow), dispersion (contaminant spreading due to the tortuous flow of groundwater in porous or fractured media), sorption (contaminant sorption from groundwater onto soil particles), diffusion (contaminant spreading due to chemical concentration gradients - including diffusion from groundwater into rock or clay matrix), dilution (mixing with uncontaminated groundwater or surface water), and volatilization (contaminant volatilization to soil gas and/or the atmosphere).

For benzene and ethyl ether, the most important natural attenuation process is biodegradation. Through a series of degradation pathways, microorganisms present in the subsurface can ultimately degrade these contaminants to nontoxic end products such as carbon dioxide, ethane, ethene, and water. The evaluation of natural attenuation processes occurring at a site must include an assessment of the potential production and accumulation of intermediate degradation products.

3.2.1 BACKGROUND ON BIODEGRADATION PROCESSES

Biologically mediated degradation reactions involve electron transfer, where the microorganisms gain energy for growth and reproduction by catalyzing redox reactions, which require an electron donor (referred to as a primary substrate) and an electron acceptor. Sources of primary substrate are naturally occurring organic carbon, or anthropogenic carbon sources, such as petroleum hydrocarbon compounds or landfill leachate rich in organic matter. The preferred degradation pathway for a given VOC is dependent upon the oxidation state of the VOC, groundwater redox conditions, primary substrate availability, and the microbial population present in the subsurface. VOCs may be degraded by serving as an electron donor that becomes oxidized, as an electron acceptor that becomes reduced, or VOCs may be degraded through cometabolism which

is an incidental reaction occurring as a result of microbial activity. These three biodegradation processes are described further below:

- use as an electron donor, or primary substrate: this process involves the transfer of electrons from VOCs, which provides energy for microorganism growth and reproduction;
- use as an electron acceptor: this process involves a transfer of electrons to the VOC. This process is a common biodegradation mechanism for chlorinated VOCs; and
- cometabolism: this process involves the incidental degradation of a VOC catalyzed by an enzyme, or cofactor, that is fortuitously produced by microorganisms for other purposes. The microorganisms indirectly transform the VOC as they use either naturally occurring, or anthropogenic, carbon sources as a primary substrate for energy. The VOC serves neither as an electron acceptor nor a primary substrate and the reaction is of no benefit to the microorganisms.

Evaluating the distribution of naturally occurring electron acceptors can provide evidence of where and how biodegradation is occurring. Naturally occurring electron acceptors available in groundwater, in the order of those that release the greatest energy to those that release the least energy, are as follows: dissolved oxygen, nitrate, manganese, and iron coatings on soil sediments, dissolved sulfate, and carbon dioxide. The sequential reduction of these electron acceptors occurs, as groundwater becomes increasingly more reducing during the biodegradation of organic compounds. With the long-term presence of organic contaminants in groundwater, a sequence of redox zones of increasing redox potential will develop downgradient from a source area (Lyngkilde and Christensen, 1992a; Appelo and Postma, 1993). The sequence of these redox zones, in order of the closest to the farthest away from a source area, can be as follows:

1) methanogenic zone (carbon dioxide reduction to methane);
2) sulfidogenic zone (sulfate reduction to sulfide);
3) ferrogenic zone (Fe^{3+} reduction to Fe^{2+});
4) manganogenic zone (Mn^{4+} reduction to Mn^{2+});
5) nitrate-reducing zone (nitrate reduction to nitrite); and
6) aerobic zone (dissolved oxygen reduction to water).

The extent of each individual redox zone is site-specific, and will depend on substrate migration pathways, kinetics of redox processes, hydraulic retention times, and the availability of various electron acceptors in groundwater. Identifying the redox zones

downgradient of a source area can provide strong evidence of the occurrence of biodegradation.

Reducing conditions in groundwater often are associated with increased dissolved metals concentrations. When the groundwater becomes depleted of dissolved oxygen and nitrate, conditions become anaerobic where the reduction and subsequent dissolution of iron and manganese oxide coatings on soil sediments can occur. These reactions will result in the mobilization of ferrous iron (Fe^{2+}) and dissolved manganese (Mn^{2+}) in groundwater. In their oxidized state, Fe^{3+} and Mn^{4+} are practically insoluble at pH levels of 5 to 7, and dissolved concentrations are considered to represent the reduced species of Fe^{2+} and Mn^{2+} (Lyngkilde and Christensen, 1992a). The mobilization of manganese will begin prior to that of iron because dissolved manganese is more stable over a larger range of redox conditions than ferrous iron (Baedecker and Back, 1979). However, the concentration of dissolved iron in groundwater often is greater than that of manganese because soil sediments typically consist of a greater iron content (Hem, 1985).

3.2.2 CHEMICALS OF CONCERN FOR DEGRADATION EVALUATION

Site contaminants of concern in OU2 groundwater include benzene and ethyl ether. Benzene in aerobic microbial conditions is readily oxidized to carbon dioxide. The biodegradation of benzene anaerobically has been found to occur under iron, nitrate, and sulphate reducing conditions. However, it is highly dependent on microbial species present.

Few published research papers are available at this time that evaluates the reductive biodegradation of ethyl ether in natural aquifers. Studies on other ether compounds such as methyl tert-butyl ether have shown that no appreciable amount of biodegradation occurs in anaerobic environments. Mechanical/physical mechanisms (i.e., dispersion, dilution, and diffusion) may be more significant than the biodegradation mechanism for natural attenuation of ethyl ether.

3.3 SITE HYDROGEOLOGY

Groundwater flow is in a northerly direction on the Site changing to northwesterly, immediately north of the Site, as shown on Figure 2.2. Groundwater flows toward the Hudson River downgradient of the Site. The monitoring wells MW-5B, MW-4B, MW-2S,

MW-3SR, MW-6B, MW-9B, MW-12B, MW-13B, MW-16B, MW-17B, and MW-19B are all screened at the base of the upper aquifer.

The monitoring well MW-5B is upgradient of both the Site and the air sparging area and is representative of upgradient groundwater conditions. Wells MW-4B, PZ-14, PZ-20 represent source area conditions, and MW-2S, MW-6B, MW-9B, MW-12B, MW-13B, MW-16B, MW-17B, and MW-19B represent downgradient conditions.

Active air sparging is ongoing in the southern portion of the Site, and is hydraulically upgradient of most of the Site.

3.4 NATURAL ATTENUATION INDICATOR PARAMETER SAMPLING EVENT

The natural attenuation indicator parameters sampled include the following geochemical and redox reaction indicator parameters (field parameters, general chemistry parameters, and dissolved metals), and compounds of concern:

- temperature;
- pH;
- turbidity;
- conductivity;
- dissolved oxygen (DO) concentrations;
- oxidation-reduction potential (ORP);
- nitrate concentrations;
- dissolved iron concentrations
- dissolved manganese concentrations;
- sulphate concentrations;
- dissolved organic carbon (DOC);
- dissolved methane;
- alkalinity;
- benzene; and
- ethyl ether.

Site-specific indicators of natural attenuation were evaluated based on groundwater quality monitoring data collected in May and June 2006. To effectively characterize background groundwater conditions, groundwater was sampled at MW-5B, which is hydraulically upgradient of the Site. To determine groundwater conditions in the source area, wells sampled in the source area included MW-4B, PZ-14, PZ-20, and hydraulically downgradient of the source area at wells MW-2S, MW-6B, MW-9B, MW-12B, MW-13B, MW-16B, MW-17B, and MW-19B.

The monitoring wells MW-5B, MW-4B, MW-2S, MW-3SR, MW-6B, MW-9B, MW-12B, MW-13B, MW-16B, MW-17B, MW-19B, PZ-14, PZ-20, and RW-1 were sampled during the May and June 2006 monitoring rounds. The piezometers PZ-14, PZ-20, and recovery well RW-1, were also sampled in May and June. During all sampling rounds, the listed wells were sampled for the natural attenuation indicator parameters listed above, with the exception of DOC, which was not measured in the June 2006 round for any of the wells. During the June 2006 monitoring round, the well MW-5B was only sampled for field parameters and benzene and ethyl ether. The 2006 VOC, metals, and general chemistry data are presented in Table 3.1.

3.5 NA EVALUATION – WEIGHT OF EVIDENCE EVALUATION APPROACH

A weight-of-evidence approach is applied to demonstrate the occurrence of natural attenuation processes at the Site. This evaluation includes examining trends in the geochemical and redox indicator parameter data along a common groundwater flow path to evaluate indirectly the type(s) of natural attenuation processes occurring at the Site. The lines of evidence evaluated consist of the following:

- steady-state (stable) or receding plume conditions over distance and time;
- geochemical and redox indicator parameters demonstrating the occurrence of biodegradation processes; and
- the presence of metabolic end products.

These lines of evidence were evaluated using qualitative means as described below.

- Concentration Reduction Along Flow Path and Over Time

  If biological destruction of VOCs is occurring, quantifiable decreases in VOC concentrations over time should be measured. VOCs of concern should exhibit decreasing concentrations along the flow path downgradient of the source area. A

key indicator of biodegradation is the presence of daughter products at monitoring wells located in and downgradient of source areas. Decreases in parent compounds and the presence of their degradation products (i.e., daughter/end products) provide strong evidence that degradation of parent VOCs by natural attenuation is occurring.

- Redox Zone Delineation Including Identification of Electron Donors and Acceptors

  An evaluation of redox indicator parameters is conducted to determine whether conditions in the groundwater flow system are conducive to biodegradation of the VOCs present, by demonstrating that groundwater conditions at the Site are conducive to natural biodegradation and that biodegradation is occurring. Using a comparison of upgradient to on-Site and downgradient wells is essential to evaluating changes in aquifer conditions that occur as a result of biological oxidation-reduction reactions.

- Characterization of Metabolic Byproducts

  Further qualitative natural attenuation evaluation involves analysis of the presence of specific metabolic by-products of in order to determine whether VOCs are undergoing degradation. For instance, an increase in alkalinity is indicative of increased biological activity.

3.5.1 CONCENTRATIONS TRENDS OVER TIME

The concentration trends over time for benzene and ethyl ether were evaluated for 31 wells at the Site. The results of the statistical evaluation are presented in Table 3.2. The results of the statistical analysis indicate that there are decreasing trends for both benzene and ethyl ether in all monitoring wells where significant trends exist. Out of the 31 wells evaluated:

- 1 well (MW-17B), with an ethyl ether concentration above the screening criterion of 1,200 ppb, showed no significant trend over time since 1998 for ethyl ether but appear to be declining since 2005;
- 5 wells showed a decreasing trend for benzene (all within the source area);
- 3 wells showed a decreasing trend for ethyl ether (all downgradient);
- 17 wells showed no significant trend over time for ethyl ether;
- 4 wells showed no significant trend over time for benzene;
- 22 wells had insufficient benzene detections for trend analysis; and
- 11 wells had insufficient ethyl ether detections for trend analysis.

Decreasing concentrations over time is good evidence that natural attenuation is occurring in the groundwater at the Site. However, the decreasing trends for benzene all occurred within the source area, near where the air sparging is taking place. It is possible that the air sparging is contributing to the decrease in benzene over time. Details of the trend evaluation are presented in Appendix B.

Benzene concentrations are essentially non-detect downgradient of OU1, and the concentrations of ethyl ether have decreased in OU2. Future contributions from the source area OU1 are expected to be minimal based upon conservative modeling as presented in the Preliminary Geochemical Evaluation dated November 30, 2007.

3.5.2 GROUNDWATER REDOX CONDITIONS

The groundwater samples collected during the natural attenuation indicator parameter sampling events were analyzed for the redox indicator parameters dissolved iron (Fe^{2+}), dissolved manganese (Mn^{2+}), nitrate, sulfate, sulfide, and methane. The redox indicator parameters pH, temperature, conductivity, DO, and ORP were measured in the field. These redox indicator parameter data are summarized in Table 3.3. Table 3.3 presents the redox indicator parameter data in terms of upgradient monitoring wells, on-Site monitoring wells, off-Site monitoring wells, and downgradient monitoring wells for both May and June 2006 sampling rounds. Due to difficulties encountered in measuring DO, the dissolved oxygen measurements were not considered for this evaluation.

Expected reducing groundwater conditions are represented by:

- decrease in DO;
- decrease in ORP;
- decrease in nitrate concentration;
- increase in dissolved iron concentration;
- increase in dissolved manganese concentration;
- decrease in sulphate concentration; and
- increase in methane concentration.

3.5.2.1 UPGRADIENT (BACKGROUND) CONDITIONS

Background conditions at the Site are defined by the chemistry at monitoring wells MW-4B and MW-5B. In June 2006, general chemistry parameters and SVOCs were not measured in MW-5B. The May 18, 2006 monitoring round is the next most recent sampling event, and will be used for this evaluation.

ORP

The concentration of ORP measurements are indicators of whether conditions are reducing or oxidizing. Typically, there is a positive correlation between DO concentrations and ORP values. It is expected that as DO concentrations increase, the groundwater becomes more oxidizing and the opposite is true for DO concentration decreases.

During the April 2006 monitoring round ORP values in the upgradient monitoring wells (MW-4B and MW-5B) were low (-63 mV to -124 mV). A low (negative) ORP indicates oxygen concentrations are very low and conditions are reducing.

Nitrate

Nitrate concentrations in the upgradient wells were below detection limits (0.05 mg/L), which indicate reducing conditions exist upgradient of the Site.

Dissolved iron and manganese

The concentration of dissolved iron upgradient of the source ranged from 0.572 (MW-4B in June) to 37.1 mg/L (MW-5B in May). The concentration of dissolved manganese in the upgradient monitoring wells ranged from 0.118 mg/L (MW-4B in June) to 3.16 mg/L (MW-5B in May). These values are generally high, which indicates that groundwater conditions are reducing upgradient of the Site.

Sulfate

The concentration of sulfate in the upgradient wells ranged from below the detection limit [ND (4) mg/L in MW-5B] to 22.6 mg/L (MW-5B in June), indicating that the upgradient groundwater conditions are reducing.

Methane

The concentration of methane in the upgradient wells ranged from 0.0028 mg/L (MW4B in May) to 0.78 mg/L (MW-5B in May), which indicates that upgradient groundwater conditions are reducing.

Summary

A low (negative) ORP value, low nitrate, low sulfate, high dissolved iron, and manganese, and the presence of methane, suggest background conditions are reducing. These data suggest groundwater conditions are ferrogenic to methanogenic, because concentrations of dissolved iron and manganese are high and dissolved methane is present.

3.5.2.2 IMPACTED AREA REDOX CONDITIONS

ORP

ORP values ranged from –151 mV (MW-16B) to 256 mV (MW-3SR). In general, values were below zero, indicating reducing conditions exist within the source area and Downgradient well. However, the ORP values were not more negative than the upgradient conditions, and therefore, do not indicate an increase in biological activity within the source area.

Nitrate

The concentrations of nitrate in the monitoring wells at the Site were very low (less than 5 mg/L). This indicates that conditions at the Site are generally reducing at all monitoring wells. Therefore, nitrate cannot be used as an indicator of redox conditions at the Site.

Dissolved iron and manganese

The concentration of dissolved iron in the source area ranged from 2.28 mg/L to 67.8 mg/L (PZ-14 in June and May, respectively). The higher values are above the upgradient values, but there are significant fluctuations between May and June sampling rounds, and there are values in the source area in June that are below the May upgradient values. Historical iron concentrations in the source area are higher than the concentrations measured in the upgradient locations (See Table 3.3). Therefore, the

dissolved iron data indicate that conditions are somewhat more reducing in the source area relative to the upgradient conditions.

Sulfate

The highest sulfate concentrations were measured in the source area at PZ-14 (1,350 mg/L, May 18, 2006). The concentrations are much higher than the upgradient concentration, which means that the source material contains sulfate, and therefore, sulfate cannot be used as an indicator of redox conditions at the Site.

Methane

Methane concentrations in the source area ranged from 0.77 (PZ-14 in May) to 9.6 mg/L (PZ-20 in June). The concentration of methane in the source area was generally higher than in the upgradient samples.

3.5.2.3 REDOX SUMMARY

The redox data indicate that the conditions at the Site are generally reducing. The dissolved methane and dissolved iron data indicate that the conditions in the source area are more reducing than upgradient conditions. The nitrate and ORP data indicate that conditions are reducing both upgradient and in the source are and therefore, cannot be used to determine if an increase in biological activity is occurring in the source area. The sulfate data indicate that sulfate is part of the source material and therefore, cannot be used as an indicator of redox conditions at the Site.

3.5.3 METABOLIC BY-PRODUCTS

An increase in alkalinity in the source area relative to upgradient conditions is indicative of increased biological activity. The alkalinity measure in the upgradient well was 258 mg/L. The alkalinity in the source area ranged from 55 mg/L (PZ-14) to 284 mg/L (PZ-14). The values in the source area were not significantly higher than the upgradient value. This does not support the existence of biodegradation at the Site.

Other parameters such as pH, temperature, and conductivity were within acceptable ranges for biodegradation to occur.

Table 3.4 presents the results of the microbial analyses in the groundwater at the Site. The results indicate the presence of benzene-degrading microorganisms in the groundwater at the Site, including downgradient in OU2 at locations MW-9B, MW-10B, MW-11B, MW-12B, MW-13B, and MW-19B, as indicated by the microbial data in Appendix A. This is good evidence that the biodegradation of benzene is occurring. There is currently no commonly performed test for the existence of microorganisms that can degrade ethyl ether.

3.6 SUMMARY

Multiple lines of evidence for the occurrence of natural attenuation via biodegradation were evaluated at the Site. The evidence supporting the occurrence of significant biodegradation included:

- decreasing concentration trends for benzene were identified in five source area wells and decreasing trends for ethyl ether were identified in three downgradient wells;
- the iron and methane data indicated that conditions in the source area are more reducing than background conditions, which indicates an increase in biological activity within the source area; and
- microorganisms that degrade benzene were detected within the groundwater at the Site.

The other redox parameters did not indicate that the source area was more reducing than upgradient. The expected increase in alkalinity concentrations from upgradient to source area was also not detected. However, because the upgradient conditions are reducing, an increase in biological activity might not be detectable using nitrate and ORP values.

It appears that natural attenuation is occurring within OU2 at the Site, and that there is evidence to suggest that biodegradation of benzene is occurring. It appears that natural attenuation of ethyl ether is also occurring within OU2 but the mechanical/physical mechanisms of dispersion, dilution, and diffusion may be more significant than biodegradation.

4.0 RISK ASSESSMENT

4.1 GENERAL

The only exceedances of USEPA Region 3 Risk-Based Concentrations for top water or Region 9 Preliminary Remediation Goals were for chloroform (5 of 17 locations), ethyl ether (1 of 17 locations), and iron (total and dissolved). Iron (total and dissolved) also exceeded the Region 3 RBCs and Region 9 PRGs for upgradient wells. A Human Health risk Assessment (HHRA) was performed as indicated below.

In accordance with the relevant USEPA guidance and procedures (USEPA, 1989, 1991a, 1991b, 1997, 2001, 2004a), the HHRA includes the following primary elements:

1) Site Characterization - This includes the incorporation of Site-specific investigation data coupled with the identification of potential site receptors to develop a Conceptual Site Model (CSM) which describes the factors (chemical/parameter source, media of concern, release mechanisms, transport mechanisms, and potential receptor uptake routes) that could produce a complete exposure pathway and lead to human intake of chemicals at the Site; and the selection of the contaminants of potential concern (COPCs), as discussed in Section 4.2.2.

2) Exposure Assessment - This is the estimation of the magnitude, frequency, duration, and routes of exposure.

3) Toxicity Assessment - This assessment examines available evidence regarding the potential for a particular chemical to cause adverse effects in exposed individuals and estimates the extent of exposure and possible severity of adverse effects.

4) Risk Characterization - The objective of the risk characterization is to integrate information developed in the exposure assessment and the toxicity assessment into an evaluation of the potential human health risks associated with exposure to potentially contaminated media at the Site.

Ultimately, this risk assessment considers risk relative to the following principle:

> *"Where the cumulative carcinogenic site risk to an individual based on reasonable maximum exposure for both current and future land use is less than 10^{-4} and the non-carcinogenic hazard quotient is less than 1, action generally is not warranted unless there are adverse environmental impacts."* (U.S. EPA, 1991b)

This section presents a summary and the results of the Human Health Risk Assessment. The detailed HHRA, however, is provided in Appendix C.

4.2 SITE CHARACTERIZATION

4.2.1 EXPOSURE PATHWAYS

OU2 includes the off-property portion of Site groundwater contaminant plume of ethyl ether. Although there is no current use of groundwater as a source of drinking water, and the groundwater is considered non-potable, this HHRA was prepared to conservatively evaluate the risk associated with the potential future utilization of the off-property groundwater (OU2) for a hypothetical residential use scenario. This approach was selected because it is the most conservative.

In order to evaluate the significance of the impacted groundwater within OU2 at the Site, the potential pathways by which individuals may come in contact with the groundwater must be determined. The combination of factors (chemical source, media of concern, release mechanisms, and potential receptors) that could produce a complete exposure pathway and lead to human uptake of chemicals are assessed in what is defined as a Conceptual Site Model (CSM). Adjacent, hypothetical residents have been assumed as the potential human receptors for the OU2 groundwater.

OU2 contains groundwater impacted by VOCs and metals. Currently, groundwater from OU2 is not used for potable purposes. There are no known water wells downgradient of the Site based upon a search of the Water Well Information on the NYSDEC web site (http://www.dec.state.ny.us/cfmx/extapps/WaterWell/; NYSDEC, 2006). In addition, the concentrations of total iron range from 3.45 to 47.9 mg/L and dissolved iron range from 0.375 to 43 mg/L in upgradient Site wells based on 2001 to 2005 data for monitoring wells MW-4B and MW-5B. These iron concentrations are above the aesthetic drinking water standard of 0.3 mg/L presented in the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) (NYSDEC, 1998). Even though groundwater use is unlikely in the future, the risk assessment evaluates OU2 groundwater as a potable drinking water source, because this approach is considered the most conservative.

Exposure pathways involving groundwater as a potable drinking water source typically include direct contact to COPCs in water through ingestion and dermal contact while bathing. Indirect exposure pathways for potable groundwater involve potential release

of COPCs from groundwater-to-indoor air from various activities, e.g., showering, laundering, dish washing, etc.

4.2.2 CHEMICALS OF POTENTIAL CONCERN

The identification of COPCs for OU2 groundwater was completed using a screening process, which involved a comparison of the maximum detected concentration of each contaminant in OU2 groundwater to a risk-based concentration associated with target risks and conservative default exposure assumptions. The most up-to-date and the lowest of the risk-based concentrations (RBCs) from the USEPA Region III (R3-RBCs) (USEPA, 2006a), Region IX preliminary remediation goals (R9-PRGs) (USEPA, 2004b), NYSDOH Maximum Contaminant Levels (MCLs) (NYSDOH, 2004), and NYSDEC Ambient Water Quality Standards and Guidance Effluent Limitations, Divisions of Water Technical and Operational Guidance (TOGS) (NYSDEC, 1998) were used to identify COPCs in the groundwater for the HHRA. Chemicals with maximum concentrations less than their respective screening value were not identified as COPCs, and were not retained in the HHRA quantitative process. Additionally, any parameter that had a level of detection frequency (LDF) less than 5 percent was not identified as a COPC for this risk assessment.

Background iron levels (total and dissolved) were detected at maximum concentrations greater than the screening criteria for groundwater. Site groundwater concentrations of ethyl ether, iron (total), and iron (dissolved) were detected at maximum concentrations greater than the screening criteria for groundwater. As a result, background iron, and OU2 ethyl ether and iron (total and dissolved) were identified as COPCs for groundwater.

4.3 EXPOSURE ASSESSMENT

Exposure is defined as the contact of a receptor with a chemical or physical agent. The exposure assessment is the estimation of the magnitude, frequency, duration, and routes of exposure. An exposure assessment provides a systematic analysis of the potential exposure mechanism by which a receptor may be exposed to chemical or physical agents at or originating from a source. The objectives of an exposure assessment are as follows:

1) characterization of exposure setting;
2) identification of potential exposure pathways; and

3) quantification of exposure.

The exposure assessment is presented in Appendix C - Section 3.0.

Based on the results of the media-specific screening presented in Appendix C - Section 2.6, the following media and potential human exposures (i.e., complete pathways) have been identified for quantitative evaluation, beyond screening, in the HHRA:

1) Background Groundwater – Hypothetical Future Resident:
   - dermal contact with groundwater by resident (child and adult);
   - ingestion of groundwater by resident (child and adult); and
   - inhalation of vapors from volatile COPCs by resident (child and adult).
2) OU2 Groundwater – Hypothetical Future Resident:
   - dermal contact with groundwater by resident (child and adult);
   - ingestion of groundwater by resident (child and adult); and
   - inhalation of vapors from volatile COPCs by resident (child and adult).

To quantify exposure, potential exposure scenarios were developed using USEPA guidance documents, as presented in Appendix C - Section 3.3. In instances where USEPA documents did not present necessary factors, or where more appropriate scientific data were not available, professional judgment was applied to develop conservative assumptions that are representative of the Reasonable Maximum Exposure (RME) and Central Tendency (CT) or mean exposure and are protective of human health.

4.4 TOXICITY ASSESSMENT

The toxicity assessment weighs the available data regarding the potential for a particular COPC to cause adverse effects in exposed individuals and estimates the extent of exposure and possible severity of adverse effects. To develop toxicity values, two steps are taken: hazard identification and dose-response assessment. The hazard identification determines the potential adverse effects associated with exposure to a COPC. In the dose-response assessment, numerical toxicity values are determined or selected from the available toxicity data.

In the selection of toxicity values, preference has been given to the most recently developed values because these would incorporate the most recent toxicological information and would provide the best basis upon which to assess potential health hazards/risks. Toxicity values were primarily obtained from the IRIS (Integrated Risk Information System) database (USEPA, 2006b) and the USEPA-National Center for Environmental Assessment (NCEA) provisional values as presented in the USEPA Region IX PRGs (USEPA, 2004b) and USEPA Region III RBCs (USEPA, 2006a).

The toxicity assessment is presented in Appendix C - Section 4.0.

4.5 RISK CHARACTERIZATION

The objective of the risk characterization is to integrate information developed in the exposure assessment and the toxicity assessment into an evaluation of the potential human health risks associated with exposure to potentially contaminated media at the Site. The methods used in this risk characterization are based on USEPA guidance for human exposures (USEPA, 1989, 1991a, 1991b, 1997, 2001, 2002, 2004a).

Risk Quantification Summary

The non-cancer hazard calculations and calculated lifetime cancer risks for future potential receptors using background groundwater and OU2 groundwater are presented in Appendix C Section 5.3. and summarized below.

Receptor	*Medium*	*Route*	*Exposure*	*Cancer Risk*	*Risk > 10^{-6}*	*Risk > 10^{-4}*	*Non-Cancer Hazard Index*	*Hazard > 1.0*	*Appendix C Table Reference*
Resident (Hypothetical Future)	Background Groundwater	Ingestion Dermal Inhalation	CT	NC	NA	NA	2.4E+00	Yes	C.11
			RME	NC	NA	NA	6.8E+00	Yes	C.12
	OU2 Groundwater	Ingestion Dermal Inhalation	CT	NC	NA	NA	3.1E+00	Yes	C.13
			RME	NC	NA	NA	6.0E+00	Yes	C.14
	OU2 Groundwater	Ingestion Dermal Inhalation	CT	NC	NA	NA	7.0E-01	No	--
			RME	NC	NA	NA	<0.0	No	--

Note:

NC = not calculated as COPCs are not considered to be carcinogenic
NA = not applicable

The HI attributable to potential site-related impacts on OU2 groundwater, i.e., HI OU2 groundwater less HI background groundwater is less than 1 for both Central Tendency (CT) and Reasonable Maximum Exposure (RME). Therefore, the risk assessment indicates that no significant additional toxic effect attributable to the Site is expected based upon the concentrations in OU2 groundwater. Details are presented in the following section.

Risk and Hazard COPC Contributions

The contribution to total risk and hazard of each COPC for a specific combined exposure scenario varies, depending on the COPC exposure point concentration and relative toxicity. Frequently, most of the risk estimated for an exposure scenario can be attributed to a few COPCs. The following paragraphs present a summary of the COPCs contributing the majority of risk and/or hazard in OU2 groundwater. The results of this analysis are also shown in Appendix C - Section 5.5.

The RME cumulative HI for OU2 groundwater was 6.0, which exceeds the target hazard level of 1.0. For OU2 groundwater, the RME HI of 6.0 primarily results from the potential ingestion exposure to iron in the OU2 groundwater. Ingestion of iron accounts for 96 percent of the cumulative HI. The cumulative HI for the target organs associated with exposure to ethyl ether was below 1.0; therefore, exposure to ethyl ether in groundwater for the hypothetical future resident is within acceptable levels. The RME HI of 6.8 for exposure to iron in the background groundwater is consistent with the RME HI of 5.8 observed due to exposure to iron in OU2 groundwater. From the risk characterization, it is evident that residential ingestion exposure to iron is the main contributor to the hazard index for both background and OU2 groundwater. In addition, the calculated hazard was found to be slightly higher for residential exposure to background iron levels compared to OU2 groundwater iron. Therefore, the calculated hazard associated with iron exposure through hypothetical future residential groundwater ingestion is comparable to the normal background hazard for this area. To further characterize the hazard exceedance due to residential ingestion exposure to iron within the OU2 groundwater, additional analyses were conducted to compare OU2 concentrations of iron to background (upgradient) levels. Details of the statistical analysis are presented in Appendix C (Attachment B). Three statistical tests were selected to compare OU2 data to background data according to applicable guidance (e.g., USEPA, 2002 and NAVFAC, 2004). The results show that there were no statistical differences between OU2 and background iron concentrations, which suggests that former activities and the contamination present on Site have not contributed or elevated

the levels of iron in the area. As a result of these findings, the hazard levels are within the acceptable levels.

4.6 CONCLUSIONS

Based on the information presented in the HHRA, the following conclusions are made:

1) The calculated RME cumulative hazard indices for ingestion, dermal contact, and inhalation exposure to background and OU2 groundwater were 6.8 and 6.0, respectively. The Site-related contribution has a HI of less than 1.0.
2) Exposure to ethyl ether in OU2 groundwater for the hypothetical future resident is within acceptable levels.
3) No carcinogens were identified as COPCs, therefore, a cancer risk was not calculated.

4.7 UNCERTAINTY

The objective of the human health risk assessment process is to estimate an upper-bound average, and average risk for potential receptors under potential hypothetical future exposure scenarios. As noted, for the purposes of this assessment, it was assumed that OU2 groundwater could hypothetically be used as a potable source of residential drinking water even though it is not currently used for that purpose, and it is considered non-potable because of elevated background levels of iron that exceed the aesthetic drinking water standard of 0.3 mg/L presented in TOGS 1.1.1 (NYSDEC, 1998). Therefore, actual future risk estimates are likely to be much lower than presented here and are, in fact, likely to be zero. All uncertainty associated with the risk assessment is discussed in Appendix C, Section 5.6.

5.0 IDENTIFICATION AND SCREENING OF REMEDIAL TECHNOLOGIES

5.1 GENERAL

The National Contingency Plan (NCP) requires that a range of alternatives be developed and evaluated as part of a FFS in order to form the basis for a remedy selection. Generally, it is necessary to develop a range of alternatives for each impacted media, ranging from "no action" to those that involve destruction, active treatment, control/isolation, and/or removal of the contaminant source. This FFS focuses on the off-Site groundwater plume (OU2) of ethyl ether. The ethyl ether plume is centered around monitoring well MW-16B. Current groundwater concentrations of ethyl ether, the primary organic COPC within OU2, are consistent with historical concentrations overall, and have decreased at some individual locations. Groundwater concentrations of ethyl ether since 1997 have shown a statistically significant decrease at locations MW-6B, MW-12B, and MW-13B. Other locations within OU2 since 1997 had no statistically trends identified or had a large percentage of non-detect results. There is evidence to indicate that natural attenuation is occurring at the Site. Groundwater in the vicinity of the Site contains elevated iron and manganese concentrations, which precludes its use as a viable drinking water source. Based upon the HHRA (refer to Section 4.0), the calculated hazard index for the OU2 groundwater is considered to be within background exposure levels. The Final Draft Feasibility Study (Dames & Moore, 1992) stated that estimated maximum loadings of ethyl ether concentrations from OU2 groundwater would have minimal potential impact on the Hudson River.

5.2 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARs)

Applicable or Relevant and Appropriate Requirements (ARARs) are used to develop remedial action objectives and to scope and formulate remedial action technologies and alternatives. ARARs are applicable or relevant and appropriate New York State Standards, Criteria and Guidelines (SCGs) and also include Federal ARARs or standards, if they are more stringent than State standards. ARARs are categorized as:

1) chemical-specific requirements that define acceptable exposure levels and may therefore be used in establishing preliminary remediation goals;

2) location-specific requirements that may set restrictions on activities within specific locations, such as floodplains or wetlands; and

3) action-specific requirements which may set controls or restrictions for particular treatment and disposal activities related to the management of hazardous wastes.

ARARs that are potentially applicable to the remediation of OU2 at the Site are summarized in Tables 5.1 and 5.2.

5.3 REMEDIAL ACTION GOAL AND OBJECTIVES

5.3.1 REMEDIAL ACTION GOAL

The overall remedial action goal, as stated in the Record of Decision (ROD), is *"to reduce the concentrations of contaminants and control the routes of exposure to protect human health and the environment."* The remedy selection process will be performed in a manner consistent with the NCP, appropriate USEPA guidance documents, and appropriate State guidance.

5.3.2 REMEDIAL ACTION OBJECTIVES

The USEPA guidance document entitled "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA" (USEPA, October 1988) states," *medium-specific or operable-unit specific goals for protecting human health and the environment. The objectives should be as specific as possible but not so specific that the range of Alternatives that can be developed is unduly limited."* Remedial action objectives established for the protection of human health and the environment should specify:

1) the contaminants and media of concern;
2) the exposure routes and receptors; and
3) an acceptable contaminant level or range of levels for each exposure route.

The calculated RME cumulative hazard indices for ingestion, dermal contact, and inhalation exposure for a hypothetical future resident to background and OU2 groundwater were 6.8 and 6.0, respectively. Ingestion of iron accounted for the majority of the cumulative non-cancer hazard index for OU2 groundwater. The hazard levels associated with ingestion of iron in the background and OU2 groundwater are similar. Additional statistical analyses of the iron levels occurring in the OU2 groundwater confirmed that the levels of iron are similar to background levels for the area, and the

associated calculated hazard index from hypothetical ingestion of OU2 groundwater containing iron are not Site-related but represent a background hazard index for the area. Therefore, the calculated hazard index for the OU2 groundwater is considered to be within background exposure levels.

There is no TOGS 1.1.1 criterion for ethyl ether. As stated in a NPEC letter to NYSDEC dated June 8, 2004, the 50 µg/L (ppb) limit for ethyl ether currently in the OU1 ROD is an arbitrary value, based on the limit for unspecified organic contaminants. The 50 ppb limit is not based on risk assessment methodologies or any Site-specific evaluations. USEPA Region 3 and Region 9 have the screening criterion of 1,200 ppb for ethyl ether as a Risk-Based Concentration (RBC) for residential tap water and as a generic Preliminary Remediation Goal (PRG) for residential tap water.

Based on the results of the RI, FS, subsequent investigations, and HHRA the following remedial action objective (RAOs) for OU2 have been established:

1) to prevent, to the extent practicable, exposure of human receptors to ethyl ether in OU2 groundwater;
2) to restore, to the extent practicable, contaminated groundwater in OU2 to a risk-based concentration of 1,200 ppb for ethyl ether; and
3) to monitor the groundwater in a manner to verify the effectiveness of the remedial actions.

5.4 GENERAL RESPONSE ACTIONS

5.4.1 GENERAL

General response actions are medium-specific remedial approaches, which encompass those actions that will satisfy the RAOs. General response actions may include institutional actions and monitoring, containment, collection, and treatment (in situ or ex situ), or a combination of these, if required, to be effective in meeting all of the RAOs. The general response actions evaluated are described in the following sections.

5.4.2 NO ACTION

The no further action response is primarily used as a basis for comparison with other alternatives. Under the no action response, no measures are taken to alter environmental conditions at the Site; however, in some cases, monitoring may continue

as appropriate. This response does not reduce the volume, mobility, or toxicity of the hazardous constituents of the Site media except to the extent that the constituent concentrations are reduced through natural mechanisms.

5.4.3 INSTITUTIONAL CONTROLS AND MONITORING

Institutional controls and monitoring responses are not intended to reduce the toxicity, mobility or volume of hazardous site constituents but to reduce the potential of human exposure to those constituents. Options may include implementation of a long-term monitoring program to track contaminant migration and transport, and initiation of institutional controls to restrict or limit: access to the Site; the use of the Site; or exposure to contaminated media.

5.4.4 CONTAINMENT TECHNOLOGIES

The containment response does not (on its own) reduce the volume or toxicity of the contaminants in the Site media. The purpose of this response is to isolate contaminants and reduce contaminant mobility, and in doing so, minimize exposure and reduce potential hazards at the Site. Periodic monitoring is necessary following implementation of the containment response to demonstrate its effectiveness and evaluate the need for further action.

Containment technologies considered for groundwater include hydraulic containment and vertical barriers.

5.4.5 COLLECTION TECHNOLOGIES

Collection technologies are used to reduce the mobility and toxicity of Site contaminants by removal and disposition at a secure location. These technologies may be used in conjunction with a disposal and/or treatment option to meet the Site-specific goals and objectives.

Collection technologies available for groundwater are limited to pumping. This action must be combined with some form of treatment (on- or off-Site) to facilitate disposal.

5.4.6 TREATMENT TECHNOLOGIES

The purpose of a treatment technology, when used alone or in conjunction with a collection technology, is to reduce the volume, toxicity, and/or mobility of Site contaminants. Treatment technologies may be implemented in situ or ex situ.

For the purposes of this FFS, all ex situ treatment options have been combined with the pumping collection technology. In situ treatment options may be implemented independent of other actions and are therefore assessed relative to the combined collection/ex situ treatment technology.

5.5 IDENTIFICATION AND SCREENING OF REMEDIAL TECHNOLOGIES

Several remedial technologies may be effective in mitigating the presence of ethyl ether in groundwater at OU2. In this section, remedial technologies that are potentially applicable to the impacted media (OU2 groundwater) and contaminants of concern (ethyl ether) are identified and screened based on technical considerations. The primary intent of the screening process is to ensure subsequent detailed evaluations of remedial alternatives focus on technologies that are effective.

Table 5.3 summarizes the technologies potentially applicable to the remediation of groundwater within OU2 at the Site.

The various remedial technologies presented were screened based on technical considerations.

Technical Considerations

Remedial technologies that could not effectively be implemented at depth, do not effectively treat ethyl ether, or are incompatible with OU2 groundwater chemistry were eliminated from further consideration.

5.5.1 TECHNOLOGY IDENTIFICATION SCREENING - GROUNDWATER

Remedial technologies selected and screened for groundwater are summarized in Table 5.3. The No Action, Limited Action, Containment and Treatment technologies

that were considered potentially applicable were screened against the technical considerations in Section 5.0. The rationale for eliminating technologies from further evaluation is presented in Table 5.3. Ex situ treatment requires extraction of the groundwater prior to treatment.

5.5.2 TECHNOLOGY SCREENING SUMMARY

Technologies and process options retained for further evaluation, based on the initial screening described above, include the following:

Media	*General Response Action*	*Technology*	*Process Option*
Groundwater	No Action	No Action	N/A
	Limited Action	Institutional Controls	Access and Deed Restrictions
		Monitoring	Long-Term Monitoring
	In Situ Treatment	Biological Treatment	Monitored Natural Attenuation
		Chemical/Physical Treatment	Chemical Oxidation
	Ex Situ Treatment	Chemical/Physical Treatment	Carbon Adsorption

6.0 DEVELOPMENT AND SCREENING OF REMEDIAL ALTERNATIVES

In this Section, the groundwater remedial technologies that were retained from the initial screening in Section 5.0, are combined into groundwater remedial alternatives. Sufficient information is gathered to allow for a more comprehensive screening of the Alternatives based on three primary screening criteria (effectiveness and implementability), as required in the NCP.

The following remedial Alternatives have been assembled for groundwater at the Site:

Alternative G1	No Action
Alternative G2	Institutional Controls
Alternative G3	Monitored Natural Attenuation
Alternative G4	In Situ Chemical Oxidation
Alternative G5	Ex Situ Carbon Adsorption

Routine groundwater monitoring will be a component of any remedy selected with the exception of the "No Action" Alternative.

6.1 ALTERNATIVE G1 - NO ACTION

Under the No Action Alternative, no remedial measures will be implemented following completion of the FFS. Annual Site inspections would be performed to ensure deterioration of current Site conditions has not occurred.

6.1.1 EFFECTIVENESS

With the No Action Alternative, no remedial actions will be performed to actively reduce mobility, toxicity, or volume of the chemicals of concern found in the groundwater. This Alternative relies on natural attenuation and degradation for the reduction of the chemicals of concern in the OU2 groundwater. Natural degradation is the tendency of the chemicals to reduce through physical, chemical, and biological processes in the natural environment. Attenuation is the tendency of a chemical to bind to in situ soil particles or organic matter resulting in a reduction of the chemical's mobility.

The No Action Alternative will not achieve the RAOs established for the Site.

6.1.2 IMPLEMENTABILITY

The No Action Alternative is implementable as well as technically and administratively feasible.

6.1.3 SUMMARY

The No Action Alternative will not meet the groundwater RAO in a reasonable time period. In addition, this Alternative will not meet the remedial action goals. This Alternative is, however, technically and administratively feasible and implementable.

The NCP requires that this Alternative be retained and developed during detailed analysis.

6.2 ALTERNATIVE G2 - INSTITUTIONAL CONTROLS

Institutional Controls would limit the exposure pathways to groundwater potentially containing contaminants of concern. Institutional Controls may involve deed restrictions, well permitting requirements, zoning controls and access restrictions, and would mitigate the potential risk to human health by restricting the potential exposure pathways.

Use of the deed restriction involves placing a notation on the property deed that makes the current and any prospective property owner aware of the property's history and restricted land uses. The deed restriction may further place a limitation on future development and/or groundwater use. This would prevent or mitigate the potential of exposure to contaminated groundwater on Site.

Zoning controls restrict land development or groundwater withdrawals by potential groundwater users. Currently, the Site is zoned commercial/industrial. This zoning ordinance precludes residential development and residential use of the Site.

As part of the institutional controls, NPEC could pursue access agreements, easements, or covenants with the other property owners of OU2, if necessary. However, it may be difficult for NPEC to obtain full cooperation of these property owners.

Access restrictions, such as the existing chain link fence surrounding the Site, can be extended to limit human exposure to media at the Site, which potentially contains COPCs. It is anticipated that access restrictions may not be required following implementation of final remedial actions.

Groundwater monitoring at the Site will be a component of this remedial Alternative. Groundwater monitoring would be performed using the existing well network supplemented by a minimum of one new monitoring well. Results of the monitoring program will be used to evaluate the movement of Site-related COPCs in the groundwater. A monitoring plan would be developed to establish the procedures and protocols for groundwater sampling and analysis. The analytical data would be used to evaluate the migration of COPCs from the Site and to monitor background groundwater quality. Although groundwater monitoring would not reduce the present risk levels, it would provide the following:

1) an early warning for the migration of COPCs from the Site; and
2) a better understanding and evaluation of the natural attenuation mechanisms in effect.

6.2.1 EFFECTIVENESS

Institutional Controls and groundwater monitoring would not reduce the mobility, toxicity, or volume of the contaminants of concern identified in groundwater at the Site. However, zoning restrictions and Site fencing would be effective in reducing future risk to human health by restricting the number of exposure pathways to media potentially containing COPCs, provided the respective controls are maintained. Groundwater monitoring would be effective in preventing public exposure by tracking the migration of any identified COPCs from the Site, as well as documenting reduction due to natural attenuation mechanisms.

This Alternative partially complies with the remedial action goals by being protective of human health; however, the Institutional Controls Alternative may not be fully protective of the environment and does not minimize the volume of untreated COPCs.

6.2.2 IMPLEMENTABILITY

Established procedures and mechanisms already exist to implement Institutional Controls over the short-term, and these means are sustainable over the proposed

long-term (e.g., a minimum of 30 years). Institutional Controls (deed notices, restrictive covenants, well permitting, access restrictions and zoning controls) relating to groundwater use are administratively feasible. However, zoning controls and well permitting can only be implemented by governmental authorities. A sufficient well network, with minor modifications, exists at the Site to implement a monitoring program. Standard procedures and protocols for monitoring and testing of Site groundwater are available.

6.2.3 SUMMARY

Institutional Controls are implementable at the Site and are effective in reducing the potential human health risk. A groundwater monitoring program would be effective in identifying potential incremental future risk due to the Site, and effective in documenting the reduction of COPCs due to natural attenuation effects.

The Institutional Controls and Monitoring Alternative alone would not meet all of the remedial action objectives identified for the Site. However, the selected remedial Alternative for the Site will likely include this Alternative as a secondary component to the remedial action. This Alternative will be carried through for detailed analysis in Section 7.0.

6.3 ALTERNATIVE G3 - MONITORED NATURAL ATTENUATION

Monitored Natural Attenuation (MNA) is the monitored use of the natural processes of intrinsic bioremediation, advection, dispersion, and sorption to remove contaminants from groundwater. It requires a structured program of groundwater monitoring of biological and chemical parameters to determine that the transformation processes are taking place at a rate that is protective of human health and the environment, and that the processes will continue at an acceptable rate for an extended period of time. Section 3.0 provides evidence that natural attenuation is occurring at the Site.

Existing site groundwater and soil characterization data must be periodically reviewed to evaluate continued evidence of natural attenuation. These data include contaminant concentrations, electron acceptors (dissolved oxygen, nitrate, manganese, ferric iron, and sulfate), oxidation-reduction potential (ORP), and dissolved gas (methane). Changes in primary ethyl ether concentrations over time can be used to estimate degradation rates or the existence of asymptotic behavior.

Historic groundwater chemistry data for ethyl ether and benzene and bioattenuation parameters suggest that natural attenuation is occurring at the Site. Benzene concentrations are essentially non-detect downgradient of OU1, and the concentrations of ethyl ether have decreased in OU2. Future contributions from the source area OU1 are expected to be minimal based upon conservative modeling as presented in the Preliminary Geochemical Evaluation dated November 30, 2007. A remedial contingency plan would be developed and implemented if concentrations of ethyl ether are above the risk criteria.

6.3.1 EFFECTIVENESS

The use of natural attenuation does not rely upon cross-media transfer of contaminants (i.e., sorption), and would be protective of human health and the environment.

Initial screening of natural attenuation parameters at the Site indicates biodegradation of groundwater contaminants is occurring at the Site. However, the rate of attenuation at each monitoring well location varies, with some wells showing groundwater impact from COPCs attenuating to non-detectable levels, while others show groundwater impact.

6.3.2 IMPLEMENTABILITY

The use of Natural Attenuation is not new at environmental sites. As experience and understanding of attenuation processes increase, practical implementation has also increased.

Natural Attenuation is readily implemented, with an adequate monitoring well network existing at the Site. Use of Natural Attenuation would be a long-term application.

The effectiveness of Natural Attenuation can be readily assessed using the Remediation Toolkit Software[1] consisting of the following: the visualization program SEQUENCE; BioTrends, for spatial and temporal evaluations, EPA and AFCEE degradation rate calculations; and BioTracker, a particle tracking program (based on BioRedox and MT3D) for predicting and evaluating attenuation.

1 Environmental Software Solutions, October 2002, 140 Bathurst Drive, Waterloo, Canada.

6.3.3 SUMMARY

Monitored natural attenuation is implementable at the Site and would be effective in ensuring the potential human health risk continues to remain below the target risk criteria in the future. A groundwater monitoring program would be effective in documenting the reduction of COPCs due to natural attenuation effects.

The Monitored Natural Attenuation Alternative would meet the remedial action objectives identified for the Site. This Alternative will be carried through for detailed analysis in Section 7.0.

6.4 ACTIVE GROUNDWATER REMEDIATION

Active groundwater remediation technologies retained for further evaluation include in situ chemical treatment, and ex situ chemical/physical treatment.

In situ chemical oxidation, ex situ carbon adsorption, and ex situ chemical oxidation alternatives are described below.

6.4.1 ALTERNATIVE G4 - IN SITU CHEMICAL OXIDATION

In situ chemical oxidation involves chemical injection to thoroughly permeating contaminated zones with a chemical oxidant or reductant (e.g., hydrogen peroxide, alkaline oxidant, etc.) to induce oxidation-reduction (redox) reactions resulting in the complete destruction of COPCs. The injectant can be placed as a slurry.

Chemical oxidants directly oxidize organics, producing carbon dioxide as a byproduct. For effective treatment to take place, a sufficient mass of chemical must be injected to react with both the contaminants and background sinks or interferences, and the injectant must reach the majority of the contaminant mass.

6.4.1.1 EFFECTIVENESS

In situ chemical oxidation would be effective at reducing the concentrations of COPCs in groundwater. This technology would provide significant reduction through destruction, rather than through transferring them to other media such as carbon matrices. Therefore, this technology would also be affective at reducing the toxicity of

contaminants at the Site. The elevated iron readings at the Site may create a natural oxygen demand that could complicate the use of chemical oxidation.

6.4.1.2 IMPLEMENTABILITY

In situ chemical oxidation is readily implemented, and technically has been well established, with equipment readily available. Repeatability of applications is also feasible. Treatability studies would be required during design to determine the optimum chemical(s) to be used, number of injection points, and volume of injectant. The injection points would be located on off-Site property.

6.4.1.3 SUMMARY

In situ chemical oxidation is implementable at the Site and would be effective in ensuring the potential human health risk continues to remain below the target risk criteria in the future. A groundwater monitoring program would be effective in documenting the reduction of COPCs due to in situ chemical oxidation.

The In situ Chemical Oxidation Alternative would meet the remedial action objectives identified for the Site. This Alternative will be carried through for detailed analysis in Section 7.0.

6.4.2 ALTERNATIVE G5 - EX SITU CARBON ADSORPTION

Ex situ carbon adsorption involves extraction of groundwater, transferring the extracted groundwater to a treatment system where the COPCs are concentrated at the surface of an adsorbent to reduce the concentration in the groundwater. The treated groundwater would have to be discharged and the sorbent material requires regeneration or disposal and replacement. Adsorption mechanisms are generally categorized as physical adsorption, chemisorption or electrostatic adsorption. The most common adsorbent is granular activated carbon (GAC). Pretreatment for removal of suspended solids may be required to prevent plugging of the carbon units. A series of GAC units in series may be required in case of breakthrough of the initial GAC unit. Periodic monitoring for treatment efficiency and breakthrough would be required.

6.4.2.1 EFFECTIVENESS

Ex situ carbon adsorption would be effective at reducing the concentrations of COPCs in groundwater. This technology would provide significant reduction through transferring COPCs to other media rather than immediate destruction. Ultimately, the carbon would be regenerated or disposed. Therefore, this technology would also be effective at reducing the toxicity of contaminants at the Site.

6.4.2.2 IMPLEMENTABILITY

Ex situ carbon adsorption is readily implemented, and technically has been well established, with equipment readily available. The GAC treatment system would be modeled to determine a satisfactory design to treat the COPCs to the RAOs.

6.4.2.3 SUMMARY

Ex situ carbon adsorption is implementable at the Site and would be effective in ensuring the potential human health risk continues to remain below the target risk criteria in the future. A treatment system and groundwater monitoring program would be effective in documenting the reduction of COPCs due to ex situ carbon adsorption.

The Ex situ Carbon Adsorption Alternative would meet the remedial action objectives identified for the Site. This Alternative will be carried through for detailed analysis in Section 7.0.

7.0 DETAILED ANALYSIS OF RETAINED REMEDIAL ALTERNATIVES

Remedial Alternatives were developed in Section 6.0 for possible application at the Site. These Alternatives were subject to a detailed analysis using seven of the nine evaluation criteria developed by USEPA as presented in the document "Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA", EPA/540/G-89/004, OSWER Directive 9355.3-01, October 1988. The nine evaluation criteria are as follows:

1) compliance with New York SCGs;
2) protection of human health and the environment;
3) short-term effectiveness;
4) long-term effectiveness and permanence;
5) reduction of toxicity, mobility or volume;
6) implementability; and
7) cost.

The seven evaluation criteria are divided into two primary groups, namely threshold criteria and balancing criteria.

The threshold criteria include overall protection of human health and the environment, and compliance with SCGs. With the exception of the no action Alternative, all remedial Alternatives must meet the threshold criteria to be eligible for further consideration.

The remaining five evaluation criteria are considered the balancing criteria. Each of the remedial Alternatives is assessed and analyzed on a comparative basis using these evaluation criteria. Ultimately, a remedial action plan will be proposed that incorporates the Alternatives that provide the best solution with respect to the balancing criteria.

The results of the detailed analysis are summarized in Table 7.1.

7.1 COMPLIANCE WITH ARARs

Alternatives G1 and G2 do not comply with various ARARs identified for the Site. Alternatives G4 may reduce the time required for the Site to comply with media specific ARARs.

7.2 OVERALL PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT

The Human Health Risk Assessment presented in Section 4.0 indicated that:

1) the calculated hazard index for iron concentrations in the OU2 groundwater is considered to be within background exposure levels;
2) exposure to ethyl ether in OU2 groundwater for the hypothetical future resident is within acceptable levels; and
3) no carcinogens were identified as COPCs, therefore, a cancer risk was not calculated.

Alternatives G1 - No Action does not change the current or potential future risks to human health or the environment identified in the HHRA. All four other remaining Alternatives provide varying degrees of protection.

Alternatives G2 - Institutional Controls will provide protection for specific, potential future human exposure scenarios not currently identified at the Site. As noted in Section 4.0, groundwater is not currently used as a source of drinking water, and, given the high background iron concentrations that exceed the NYSDEC standard in the groundwater, use of OU2 groundwater, as a potable water source is unlikely in the future.

Alternatives G3, G4, and G5 address current and potential future risks associated with groundwater. These alternatives would ensure that the potential human health risks continues to remain below the target risk criteria in the future

7.3 SHORT-TERM EFFECTIVENESS

None of the Alternatives considered pose any substantive incremental increased risks to the community, the workers or the environment in the short-term during implementation.

Alternative G4, In Situ Chemical Oxidation, has some inherent incremental risks due to the need to handle and inject chemicals into the subsurface. Potential exposure risks are limited and would be further mitigated through proper handling of the chemicals and monitoring during injection.

Alternative G5, Ex Situ Carbon Adsorption, has some inherent incremental risks due to the need to transfer impacted groundwater to a treatment system. Potential exposure risks are limited and would be further mitigated through proper design of the treatment system.

7.4 LONG-TERM EFFECTIVENESS AND PERMANENCE

Alternatives G1 does not provide a permanent remedy or actively reduce long-term risks. Institutional Controls provided in Alternatives G2 will be effective in mitigating specific long-term exposure risks, provided they are enforced. Failure to enforce Institutional Controls may impact the long-term effectiveness and permanence of any Alternative that is chosen. Long-term groundwater monitoring included in Alternatives G2 will evaluate the effectiveness of natural attenuation mechanisms at the Site, if implemented with no other action, or will serve to monitor the long-term effectiveness of any other remedy selected for implementation.

Alternatives G3, G4, and G5 provide the greatest level of permanence and long-term effectiveness through the permanent reduction in contaminant mass in groundwater. Alternative G4 may reduce the overall time to complete the remediation compared to alternatives G3 and G5, but will still require long-term monitoring.

7.5 REDUCTION OF TOXICITY, MOBILITY, OR VOLUME

Alternatives G1 and G2 will not reduce the toxicity, mobility, or volume of impacted groundwater other than what will reduce will be reduced by natural attenuation and degradation processes.

Alternatives G3, G4, and G5 will both reduce contaminant volumes and toxicity. Alternative G3 will reduce the toxicity, mobility, or volume of impacted groundwater by natural attenuation and degradation processes. Alternative G4, In Situ Chemical Oxidation will treat contaminants in groundwater through chemical degradation. Alternative G5 will treat contaminants in groundwater through physical adsorption.

7.6 IMPLEMENTABILITY

All five Alternatives can be readily implemented and are based on demonstrated technologies.

7.7 COST

The estimated present worth costs for the remedial alternatives range from approximately $175,000 (No Action) to $3,703,000 (In Situ Chemical Oxidation). Costs are presented in Appendix D. Excluding the No Action Alternative and the Institutional Controls Alternative, the least expensive active groundwater treatment alternative is the Monitored Natural Attenuation Alternative at an estimated present worth cost of $325,000.

8.0 PREFERRED REMEDIAL ALTERNATIVE

Remedial Alternative G1 was omitted from consideration due to its inability to reduce the toxicity, volume, or mobility of Site contaminants.

Remedial Alternatives G2 - Institutional Controls, will be incorporated into the preferred remedy to restrict access to the Site during implementation of remedial action, restrict long-term use of the Site to protect remedial measures and provide long-term inspections and monitoring. Once implemented, the preferred remedy will not rely on access restrictions (fencing) to maintain protection of public health.

Remedial Alternatives G3, G4, and G5 will reduce the contaminant toxicity, mobility, and volume over time, but since the HHRA indicates that OU2 groundwater does not present an additional hazard above background exposure levels and no carcinogens were identified as COPCs, and therefore, a cancer risk was not calculated; the most cost-effective remedial alternative is Alternative G3, Monitored Natural Attenuation.

A detailed description of the elements of the preferred remedial alternative follows. Estimated costs for the preferred remedy are summarized in Table 8.1.

8.1 SITE MONITORING

The Site monitoring program will include routine groundwater monitoring to assess the overall effectiveness of the remedy. A remedial contingency plan would be developed and implemented if concentrations of ethyl ether are above the risk criteria.

Routine monitoring will consist of annual sampling of select monitoring wells for a period of at least 6 years. It is anticipated that the monitoring well network and analyte list will be compressed after 6 years based on the annual sampling results. After 6 years the monitoring frequency may be reduced.

Samples collected for annual monitoring in years 1 through 6 will be analyzed for:

- ethyl ether and benzene;
- alkalinity; and
- field parameters (ORP, pH, DO, conductivity, and turbidity.

Samples collected for biennial monitoring in years 2 through 6 will be analyzed for:

- nitrate, manganese, iron (dissolved), sulfate, methane.

The analyte list for the subsequent events will be developed based on the results of the first 6 years of the annual monitoring program and biennial events performed to support the monitored natural attenuation program.

8.2 INSTITUTIONAL CONTROLS

Institutional Controls proposed and currently in place at the Site include:

1) Site fencing to restrict access during implementation of remedial measures; and
2) deed restrictions to preclude residential development and the use of groundwater as a potable water source at the Site.

8.3 MONITORED NATURAL ATTENUATION

Since the HHRA indicates that OU2 groundwater does not present an additional hazard above background exposure levels, the most cost-effective remedial alternative is Alternative G3, Monitored Natural Attenuation. The non-carcinogenic hazard level associated with the OU2 groundwater is similar to background, based upon the reported groundwater concentrations used in the HHRA presented in Section 4.0. No carcinogens were identified as COPCs, therefore, a cancer risk was not calculated in the HHRA. The groundwater would be monitored on a biennial basis for Site-specific parameters and natural attenuation parameters to ensure that the Site conditions are conducive for natural attenuation and that there is no direct human exposure to ethyl ether above 1,200 ppb within OU2.

9.0 REFERENCES

Appelo, C. A. J., and D. Postma, 1993, Geochemistry, Groundwater and Pollution, A.A. Balkema, Rotterdam, Netherlands.

Baedecker, M. J., and W. Back, 1979, Modern Marine Sediments as a Natural Analog to the Chemically Stressed Environment of a Landfill, Journal of Hydrology, Vol. 43, pp. 393-414.

CRA, 2007, Preliminary Geochemical Evaluation. November 30, 2007.

Dames & Moore, 1992, *Final Draft Feasibility Study, Sterling – Site 3 Inactive Landfill, East Grenbush, New York.* February 24, 1992.

Hem, J. D., 1985, Study and Interpretation of the Chemical Characteristics of Natural Water, Third Edition, U.S. Geological Survey Water-Supply Paper 2254.

Lyngkilde, J., and T. H. Christensen, 1992a, Redox Zones of a Landfill Leachate Pollution Plume (Vejen, Denmark), Journal of Contaminant Hydrology, Vol. 10, pp. 273-289.

NAVFAC, 2004. Guidance for Environmental Background Analysis. Volume III: Groundwater. Naval Facilities Engineering Command. User's Guide UG-2059-ENV. Port Hueneme, California.

New York State Department of Environmental Conservation (NYSDEC), 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. Dated June 1998.

New York State Department of Environmental Conservation (NYSDEC), 2006. *Water Well Information - Search Wizard.* Dated June 1998. Available at http://www.dec.state.ny.us/cfmx/extapps/WaterWell/index.cfm?view=searchByCounty. Dated May 2006.

New York State Department of Health (NYSDOH), 2004. *NYCRR Title 10, Part 5 – Drinking Water Supplies, Subpart 5-1 – Public Water Systems, Maximum Contaminant Levels (MCLs).* Dated May 26, 2004.

United States Environmental Protection Agency (USEPA), 1989. *Risk Assessment Guidance for Superfund (RAGS) Interim Final, (Part A).* Dated December 1989.

United States Environmental Protection Agency (USEPA), 1991a. *Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual, Supplemental Guidance, "Standard Default Exposure Factors", Interim Final.* OSWER Directive 9285.6-03. Dated March 25, 1991.

United States Environmental Protection Agency (USEPA), 1991b. *Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual (Part B,*

Development of Risk-Based Preliminary Remediation Goals), Interim. Publication 9285.7-01D. Dated December 1991.

United States Environmental Protection Agency (USEPA), 1997. *Exposure Factors Handbook.* EPA/600/P-95/002F. Dated August 1997.

United States Environmental Protection Agency (USEPA), 2001. *Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments), Interim.* Publication 9285.7-01D. Dated December 2001.

United States Environmental Protection Agency (USEPA), 2002. *Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites (OSWER 9285.7-41).* Office of Emergency and Remedial Response, United States Environmental Protection Agency, Washington D.C. EPA 540-R-01-003. September 2002.

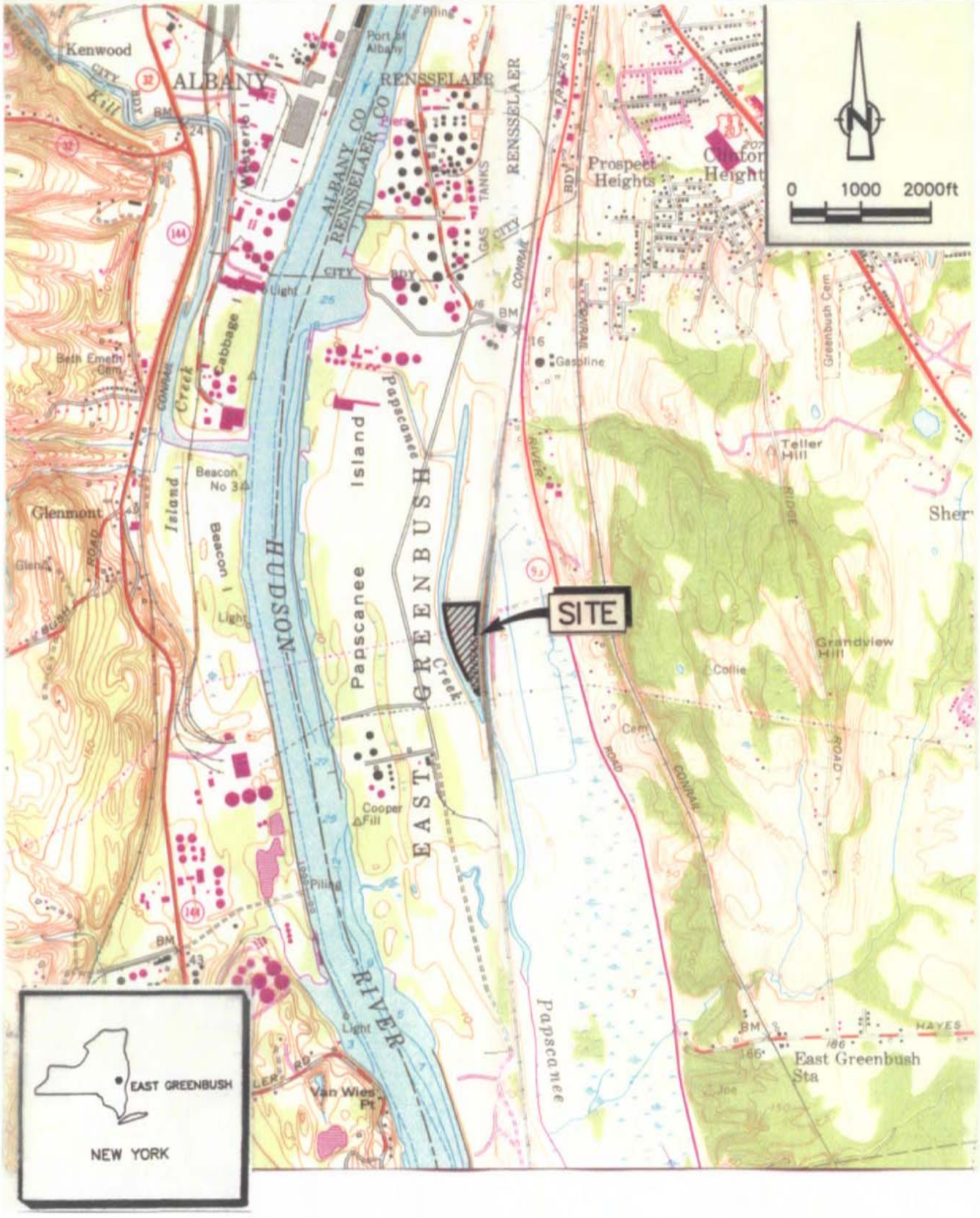
United States Environmental Protection Agency (USEPA), 2004a. *Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment).* Dated July 2004.

United States Environmental Protection Agency (USEPA), 2004b. *Preliminary Remediation Goals (R9-PRGs) Tables.* Available at: http://www.epa.gov/Region9/waste/sfund/prg/files/04prgtable.pdf. Dated October 2004.

United States Environmental Protection Agency (USEPA), 2006a. *Risk-Based Concentrations (R3-RBC) Tables.* Available at: http://www.epa.gov/reg3hwmd/risk/human/index.htm. Dated April 2006.

United States Environmental Protection Agency (USEPA), 2006b. *Integrated Risk Information System.* Available at: www.epa.gov/iris. Dated January 31, 2006.

Vogel, T.M., C.S. Criddle, and P.L. McCarty, 1987, Transformations of Halogenated Aliphatic Compounds, Environmental Science and Technology, v. 21, no. 8, p. 722-736.



SOURCE:
U.S.G.S. TOPOGRAPHIC MAP QUADRANGLE
DELMAR AND EAST GREENBUSH, N.Y.

figure 1.1

SITE LOCATION
STERLING SITE 3
East Greenbush, New York

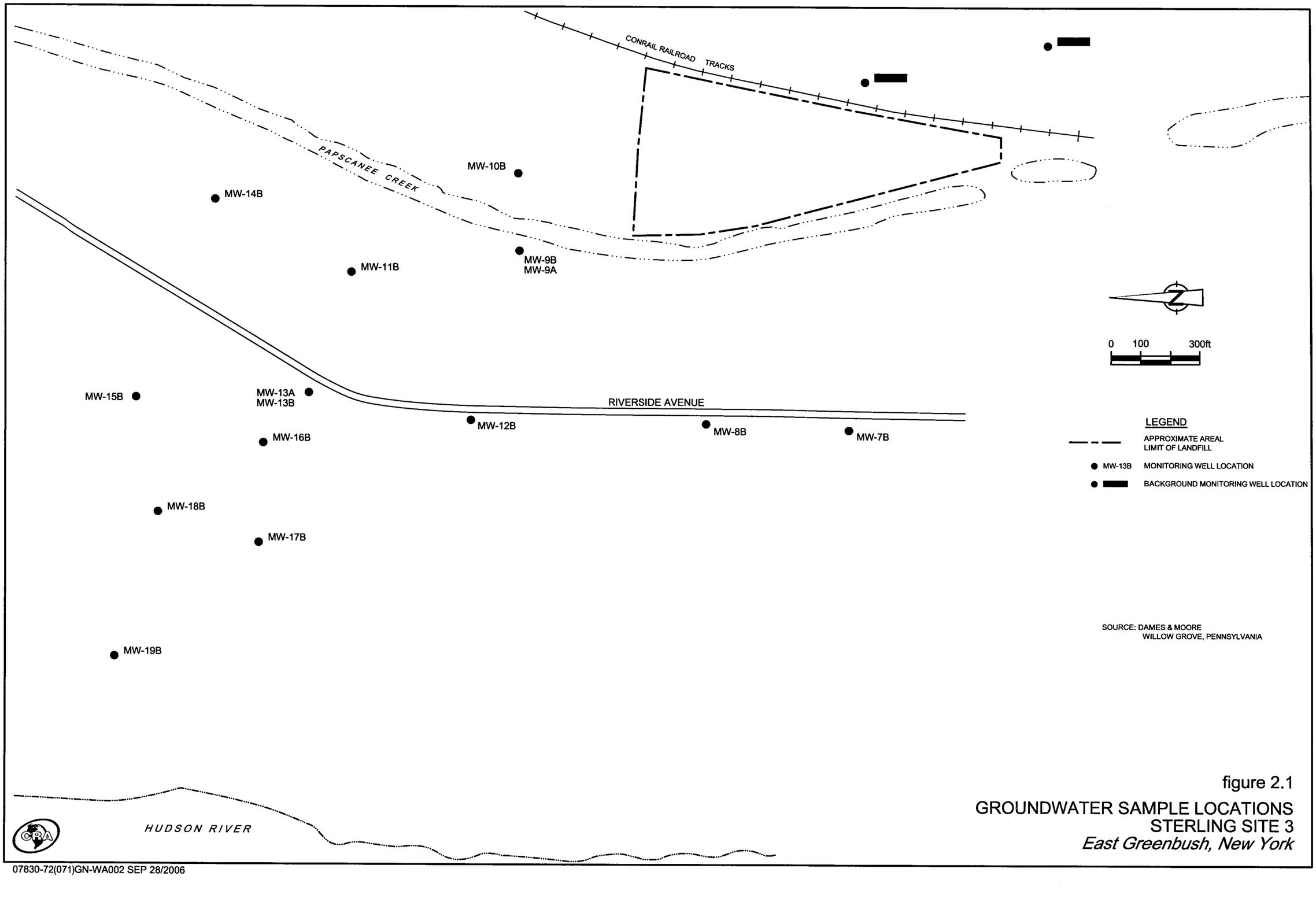
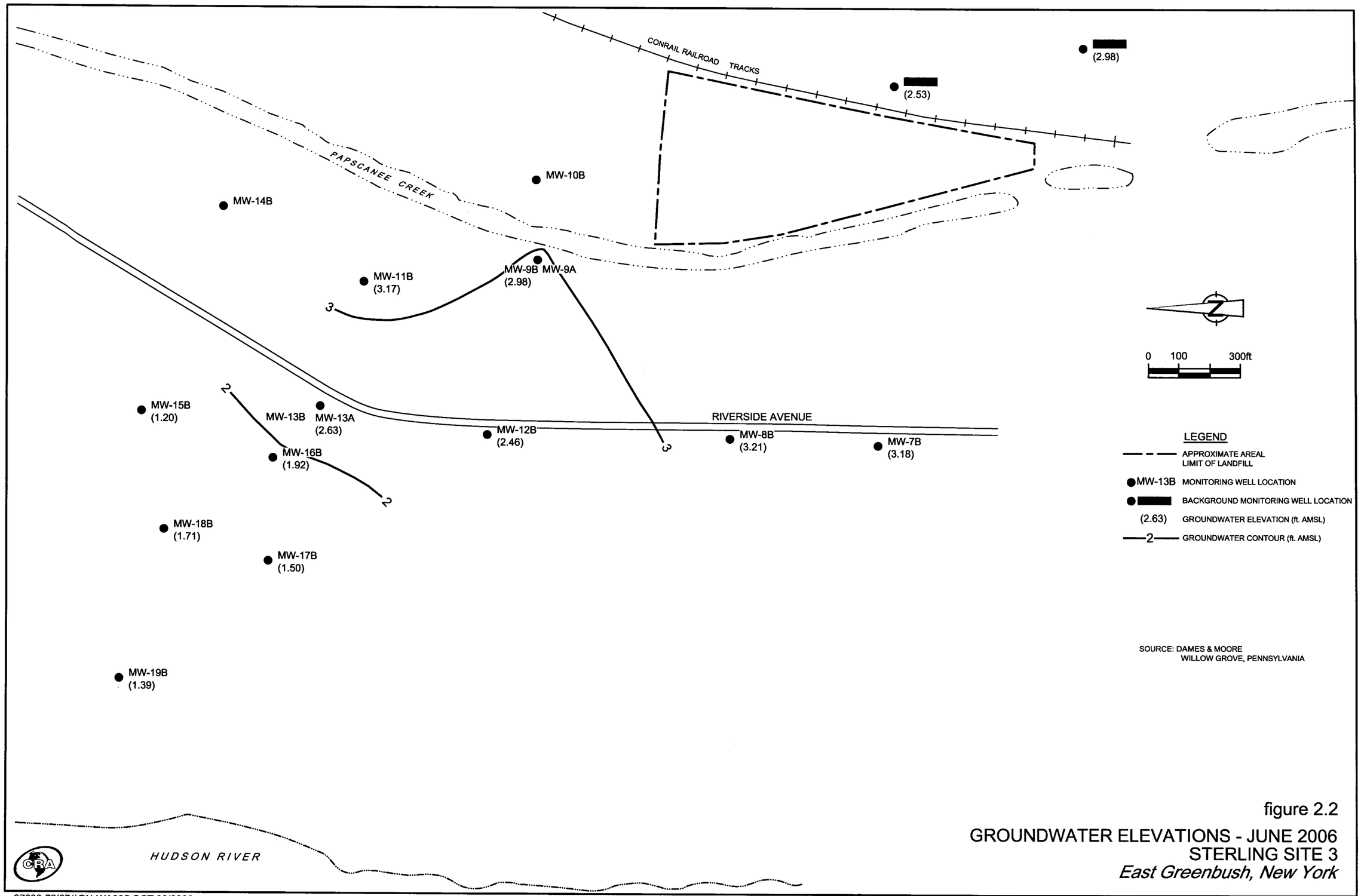


figure 2.1

GROUNDWATER SAMPLE LOCATIONS
STERLING SITE 3
East Greenbush, New York

07830-72(071)GN-WA002 SEP 28/2006



SOURCE: DAMES & MOORE
WILLOW GROVE, PENNSYLVANIA

figure 2.2

GROUNDWATER ELEVATIONS - JUNE 2006
STERLING SITE 3
East Greenbush, New York

07830-72(071)GN-WA005 OCT 03/2006

MW-4B	12/10/97	6/24/98	12/15/98	6/14/99	12/8/99	6/6/00	12/19/00	7/2/01	12/6/01	6/21/02	12/17/02	6/26/03	12/1/03	7/7/04	12/7/04	6/29/05	12/13/05	5/18/06	6/26/06
-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

MW-5B	6/24/98	6/6/00	6/21/02	7/7/04	6/26/06
Acetone	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	0.0028 J
Chloroform (Trichloromethane)	ND (0.01)	0.002 J	ND (0.005)	ND (0.005)	ND (0.0050)

MW-9B	12/9/97	6/29/98	12/15/98	6/14/99	12/8/99	6/5/00	12/19/00	7/2/01	12/6/01	6/24/02	12/17/02	6/26/03	12/2/03	6/30/04	12/7/04	6/30/05	12/13/05	5/18/06	6/26/06
Acetone	ND (0.01)/ND (0.01)	ND (0.026)/ND (0.01)	ND (0.01)	ND (0.01)/0.02 J	ND (0.01)	ND (0.01)	ND (0.01)/ND (0.01)	ND (0.01) J	ND (0.01)/ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)/ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01) UJ	ND (0.01)	ND (0.01) UJ	-	ND (0.01)
Benzene	ND (0.005)/ND (0.005)	0.001 J/ND (0.01)	ND (0.005)	ND (0.005)/ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)/ND (0.005)	ND (0.005)	ND (0.005)/ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)/ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0010)	ND (0.0010)
Chloroform (Trichloromethane)	ND (0.005)/ND (0.005)	ND (0.01)/ND (0.01)	ND (0.005)	ND (0.005)/ND (0.005)	ND (0.005)	0.002 J	ND (0.005)/ND (0.005)	0.002 J	ND (0.005)/ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)/ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)
Diethyl phthalate	-	0.0006 J/ND (0.01)	-	-	-	ND (0.01)	-	-	-	ND (0.005)	-	-	-	ND (0.005)	-	-	-	-	-
Di-n-butylphthalate	-	0.001 J/0.002 J	-	-	-	ND (0.01)	-	-	-	ND (0.005) U	-	-	-	ND (0.005)	-	-	-	-	-
Ethyl Ether	ND (0.005)/ND (0.005)	0.04/0.034	0.013	ND (0.01)/ND (0.01)	0.067	0.029	0.013/0.013	0.042	ND (0.01) J/ND (0.01) J	ND (0.01)	ND (0.01)	0.039/0.038	0.014 J	0.007 J	0.009 J	0.0099 J	0.013 J	0.012	0.01

MW-10B	6/24/98	6/7/00	6/24/02	6/30/04	6/27/06
Ethyl Ether	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.0031 J

MW-14B	6/24/98	6/2/00	6/24/02	7/9/04
-	ND	ND	ND/ND	ND

MW-9A	6/25/98	6/5/00	6/21/02	6/30/04	6/26/06
Toluene	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	0.0043 J

MW-8B	6/25/98	6/2/00	6/20/02	7/6/04	6/26/06
Acetone	ND (0.01)	ND (0.01) J	ND (0.01)	ND (0.01) UJ	0.0046 J

MW-7B	6/25/98	6/2/00	6/20/02	7/1/04	6/26/06
Chloroform (Trichloromethane)	ND (0.01)	0.001 J	ND (0.005)	ND (0.005)/ND (0.005)	ND (0.0050)

MW-11B	6/24/98	6/7/00	6/24/02	7/8/04	6/26/06
Ethyl Ether	ND (0.01)	0.015	ND (0.01)	ND (0.01) UJ	0.011

MW-15B	6/24/98	6/2/00	6/25/02	7/1/04	6/26/06
Ethyl Ether	0.003 J	0.015	ND (0.01)	0.003 J	0.0082

MW-16B	6/23/98	6/2/00	6/21/02	7/1/04	3/10/05	6/30/05	12/14/05	5/18/06	6/26/06
Ethyl Ether	4	4.7	2.7	5.1 J	1.90	3.1	1.9 J	3.1 D	2.7 J
Toluene	ND (0.2)	ND (0.1)	0.085	ND (0.05)	ND (0.1)	ND (0.005)	ND (0.005)	-	ND (0.0050)

MW-12B	6/25/98	6/5/00	6/20/02	7/8/04	3/11/05	6/29/05	12/14/05	5/18/06	6/26/06
Acetone	ND (0.05)	ND (0.05) J/ND (0.05) J	ND (0.05)	ND (0.01) UJ	ND (0.01)	0.0029 J	ND (0.01)	-	ND (0.02)
Carbon disulfide	ND (0.05)	ND (0.025) J/ND (0.025) J	ND (0.025)	ND (0.005)	ND (0.005)	0.00022 J	ND (0.005)	-	ND (0.01)
Chloroform (Trichloromethane)	ND (0.05)	ND (0.025)/0.007 J	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.01)
Ethyl Ether	1.2	0.8/0.82	0.75	1.1 J	0.13	0.69	0.078 J	0.32 D	0.14

MW-18B	6/23/98	6/7/00	6/25/02	7/8/04	6/26/06
Ethyl Ether	0.27	0.34	ND (0.01)	0.014 J	0.36

MW-13A	6/25/98	6/6/00	6/20/02	7/6/04	3/11/05	6/30/05	12/14/05	6/26/06
Acetone	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01) UJ	0.0045 J
Ethyl Ether	ND (0.01)	ND (0.01)	ND (0.01)	0.007 J	0.005 J	0.0053 J	0.0013 J	ND (0.0050)

MW-17B	6/23/98	6/2/00	6/25/02	7/9/04	3/10/05	6/30/05	12/14/05	5/18/06	6/26/06
Chloroform (Trichloromethane)	ND (0.01)	0.013 J	ND (0.005)	ND (0.05)	ND (0.025)/ND (0.05)	ND (0.005)	ND (0.005)	-	ND (0.1)
Ethyl Ether	0.071	0.48	0.74	3.3 J	1.90/1.80	1.9	1.6 J	2 D	1.4

MW-19B	6/23/98	6/7/00	6/25/02	7/8/04	3/10/05	6/29/05	12/14/05	5/18/06	6/26/06
Ethyl Ether	0.39	0.08	0.32	0.130 J	0.14	0.013	0.28 J	0.081 D	0.12

MW-13B	12/9/97	6/25/98	12/15/98	6/14/99	12/8/99	6/6/00	12/20/00	7/2/01	12/7/01	6/20/02	12/18/02	6/26/03	12/2/03	7/7/04	12/7/04	6/29/05	12/15/05	5/18/06	6/26/06
Acetone	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.02)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.05) J	ND (0.05) J/ND (0.05) J	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.02)	ND (0.01) UJ	ND (0.01) UJ	0.0039 J/0.0037 J	0.0029 J	-	ND (0.01)
bis(2-Ethylhexyl)phthalate	-	ND (0.01)	-	-	-	ND (0.01)	-	-	-	0.0005 J	-	-	-	0.00005 J	-	ND (0.01)/ND (0.01)	-	-	ND (0.071)
Ethyl Ether	0.65	0.91	0.81	0.68	0.66	0.5	0.3	0.59	0.74 J/0.7 J	0.1	0.1	0.48	0.34 J	0.54 J	0.31	0.16/0.17	0.13 J	0.77 D	0.6

CONRAIL RAILROAD TRACKS

SUNNEE CREEK

MW-10B

MW-14B

MW-9B
MW-9A

MW-11B

MW-15B

MW-13A
MW-13B

MW-16B

RIVERSIDE AVENUE

MW-12B

MW-8B

MW-7B

MW-18B

MW-17B

MW-19B

HUDSON RIVER

0 100 300ft

LEGEND

- APPROXIMATE AREAL LIMIT OF LANDFILL
- MW-13B MONITORING WELL LOCATION
- BACKGROUND MONITORING WELL LOCATION

MW-15B	6/24/98	6/2/00
Ethyl Ether	0.003 J	0.015

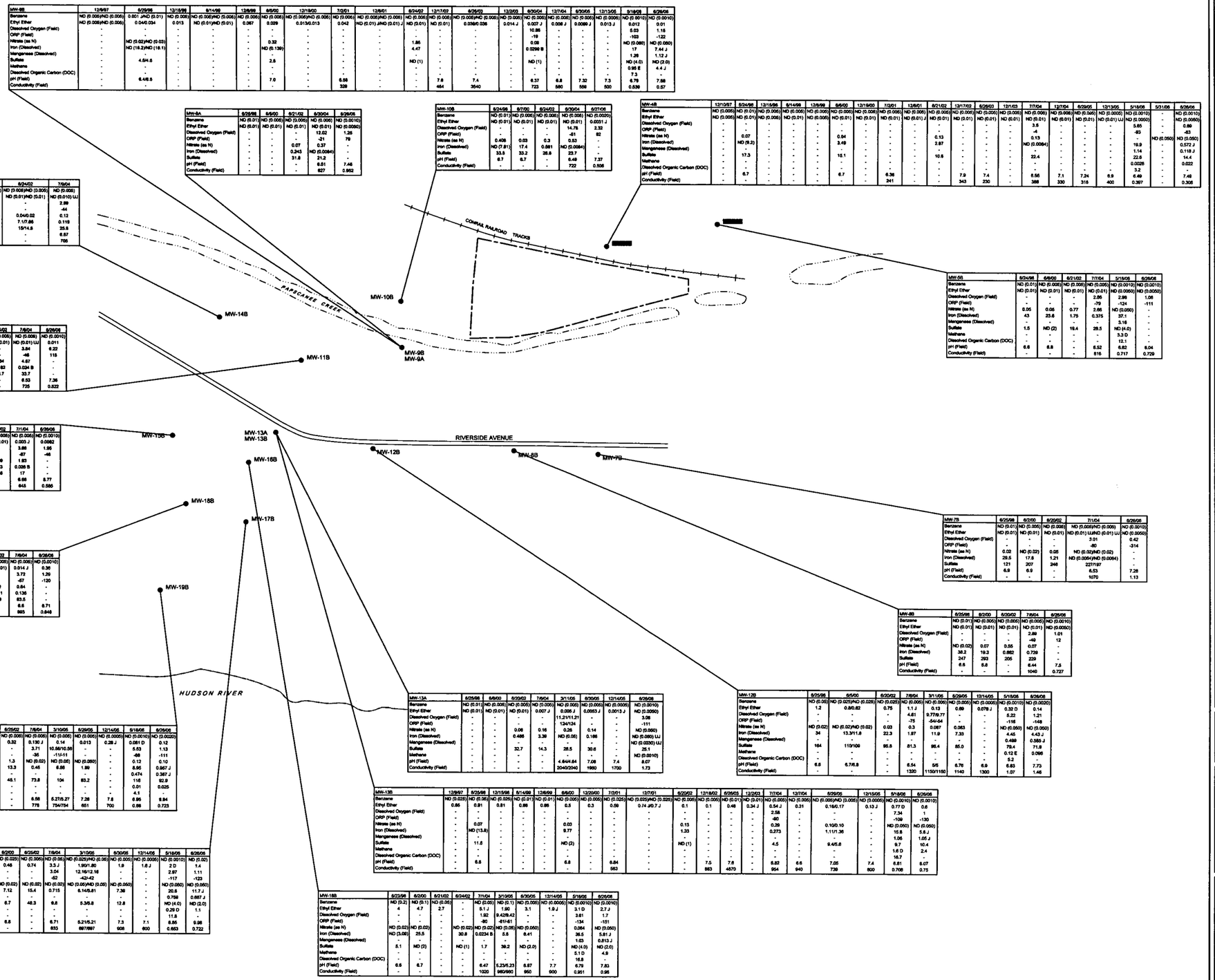
SAMPLE LOCATION
SAMPLE DATE
RESULT (mg/L)
PARAMETER

SOURCE: DAMES & MOORE
WILLOW GROVE, PENNSYLVANIA

figure 2.3

SUMMARY OF VOC AND SVOC ANALYTICAL RESULTS
STERLING SITE 3
East Greenbush, New York

07830-72(071)GN-WA004 OCT 03/2006



MW-8B	12/9/97	6/29/98	12/15/98	6/14/99	12/8/99	6/6/00	12/19/00	7/2/01	12/6/01	6/24/02	12/17/02	6/25/03	12/2/03	6/30/04	12/7/04	6/30/05	12/13/05	5/18/06	6/26/06
Benzene	ND (0.005)/ND (0.005)	0.001 JND (0.01)	ND (0.005)	ND (0.005)/ND (0.0005)	ND (0.005)	ND (0.005)	ND (0.005)/ND (0.005)	ND (0.005)	ND (0.005)/ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)/ND (0.0005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0010)	ND (0.0010)
Ethyl Ether	ND (0.005)/ND (0.005)	0.040/0.034	0.013	ND (0.01)/ND (0.01)	0.067	0.029	0.013/0.013	0.042	ND (0.01) JND (0.01) J	ND (0.01)	ND (0.01)	0.036/0.036	0.014 J	0.007 J	0.008 J	0.0089 J	0.013 J	0.012	0.01
Dissolved Oxygen (Field)	-	-	-	-	-	-	-	-	-	-	-	-	-	10.86	-	-	-	6.03	1.15
ORP (Field)	-	-	-	-	-	-	-	-	-	-	-	-	-	-19	-	-	-	-103	-122
Nitrate (as N)	-	ND (0.02)/ND (0.03)	-	-	-	0.32	-	-	-	1.85	-	-	-	0.08	-	-	-	ND (0.050)	ND (0.050)
Iron (Dissolved)	-	ND (18.2)/ND (18.1)	-	-	-	ND (0.139)	-	-	-	4.47	-	-	-	0.0299 B	-	-	-	17	7.44 J
Manganese (Dissolved)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.26	1.12 J
Sulfate	-	4.5/4.5	-	-	-	2.5	-	-	-	ND (1)	-	-	-	ND (1)	-	-	-	ND (4.0)	ND (2.0)
Methane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.95 E	4.4 J
Dissolved Organic Carbon (DOC)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.3	-
pH (Field)	-	6.4/6.5	-	-	-	7.0	-	6.56	-	-	7.8	7.4	-	6.37	6.8	7.32	7.3	6.79	7.58
Conductivity (Field)	-	-	-	-	-	-	-	539	-	-	464	3540	-	723	580	556	500	0.539	0.57

MW-9A	6/29/98	6/6/00	6/21/02	6/30/04	6/26/06
Benzene	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0010)
Ethyl Ether	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.0060)
Dissolved Oxygen (Field)	-	-	-	13.02	1.25
ORP (Field)	-	-	-	-21	79
Nitrate (as N)	-	0.07	0.37	-	-
Iron (Dissolved)	-	0.343	ND (0.0084)	-	-
Sulfate	-	31.8	21.2	-	-
pH (Field)	-	-	6.51	7.46	-
Conductivity (Field)	-	-	627	0.952	-

MW-10B	6/24/98	6/7/00	6/24/02	6/30/04	6/27/06
Benzene	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0020)
Ethyl Ether	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.0351 J
Dissolved Oxygen (Field)	-	-	-	14.75	2.32
ORP (Field)	-	-	-	-51	82
Nitrate (as N)	0.408	0.03	0.3	0.53	-
Iron (Dissolved)	ND (7.81)	17.4	0.881	ND (0.0084)	-
Sulfate	33.8	33.2	28.8	23.7	-
pH (Field)	6.7	6.7	-	6.48	7.37
Conductivity (Field)	-	-	-	722	0.506

MW-4B	12/10/97	6/24/98	12/15/98	6/14/99	12/8/99	6/6/00	12/19/00	7/2/01	12/6/01	6/21/02	12/17/02	6/26/03	12/1/03	7/7/04	12/7/04	6/29/05	12/13/05	5/18/06	5/31/06	6/26/06
Benzene	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0010)	-	ND (0.0010)
Ethyl Ether	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) J	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.0050)	-	ND (0.0060)
Dissolved Oxygen (Field)	-	-	-	-	-	-	-	-	-	-	-	-	-	3.8	-	-	-	5.85	-	0.88
ORP (Field)	-	-	-	-	-	-	-	-	-	-	-	-	-	-4	-	-	-	-93	-	-83
Nitrate (as N)	-	0.07	-	-	-	0.94	-	-	-	0.13	-	-	-	0.13	-	-	-	-	ND (0.050)	ND (0.050)
Iron (Dissolved)	-	ND (9.2)	-	-	-	3.49	-	-	-	2.87	-	-	-	ND (0.0084)	-	-	-	19.9	-	0.572 J
Manganese (Dissolved)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.14	-	0.118 J
Sulfate	-	17.3	-	-	-	16.1	-	-	-	10.6	-	-	-	22.4	-	-	-	22.6	-	14.4
Methane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0026	-	0.022
Dissolved Organic Carbon (DOC)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.2	-	-
pH (Field)	-	6.7	-	-	-	6.7	-	6.36	-	-	7.9	7.4	-	6.56	7.1	7.24	6.9	6.49	-	7.49
Conductivity (Field)	-	-	-	-	-	-	-	241	-	-	343	250	-	388	330	316	400	0.397	-	0.306

MW-14B	6/24/98	6/2/00	6/24/02	7/8/04
Benzene	ND (0.01)	ND (0.005)	ND (0.005)/ND (0.005)	ND (0.005)
Ethyl Ether	ND (0.01)	ND (0.01)	ND (0.01)/ND (0.01)	ND (0.010) UJ
Dissolved Oxygen (Field)	-	-	-	2.88
ORP (Field)	-	-	-	-44
Nitrate (as N)	0.08	ND (0.02)	0.04/0.02	0.13
Iron (Dissolved)	ND (6.81)	3.15	7.17/7.65	0.119
Sulfate	34.7	32.2	15/14.8	35.8
pH (Field)	6.8	6.8	-	6.87
Conductivity (Field)	-	-	-	705

MW-11B	6/24/98	6/7/00	6/24/02	7/8/04	6/26/06
Benzene	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0010)
Ethyl Ether	ND (0.01)	0.015	ND (0.01)	3.84	0.22
Dissolved Oxygen (Field)	-	-	-	-46	118
ORP (Field)	-	-	-	-	-
Nitrate (as N)	0.03	0.2	2.34	4.87	-
Iron (Dissolved)	ND (19.3)	8.72	0.162	0.034 B	-
Sulfate	25.6	41.9	33.7	33.7	-
pH (Field)	6.7	6.7	-	6.53	7.36
Conductivity (Field)	-	-	-	726	0.822

MW-15B	5/31/06	6/2/00	6/20/02	7/1/04	6/26/06
Benzene	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0010)
Ethyl Ether	0.003 J	0.015	ND (0.01)	0.005 J	0.0082
Dissolved Oxygen (Field)	-	-	-	3.88	1.95
ORP (Field)	-	-	-	-97	-46
Nitrate (as N)	0.256	0.33	0.99	1.93	-
Iron (Dissolved)	ND (7.74)	8.48	1.23	0.028 B	-
Sulfate	16	21.9	22.6	17	-
pH (Field)	6.8	6.8	-	6.66	8.77
Conductivity (Field)	-	-	-	645	0.585

MW-16B	6/23/98	6/7/00	6/25/02	7/8/04	6/26/06
Benzene	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0010)
Ethyl Ether	0.27	0.34	ND (0.01)	0.014 J	0.35
Dissolved Oxygen (Field)	-	-	-	3.72	1.29
ORP (Field)	-	-	-	-57	-120
Nitrate (as N)	0.08	0.33	0.81	0.84	-
Iron (Dissolved)	ND (3.85)	10.5	0.341	0.136	-
Sulfate	71	51.7	70.9	63.5	-
pH (Field)	6.8	6.8	-	6.6	8.71
Conductivity (Field)	-	-	-	865	0.848

MW-17B	6/23/98	6/2/00	6/25/02	7/8/04	3/1/05	6/30/05	12/14/05	5/18/06	6/26/06
Benzene	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.56)	ND (0.025)/ND (0.05)	ND (0.005)	ND (0.0005)	ND (0.0010)	ND (0.02)
Ethyl Ether	0.071	0.48	0.74	3.3 J	1.90/1.80	1.9	1.8 J	2 D	1.4
Dissolved Oxygen (Field)	-	-	-	3.04	12.16/12.16	-	-	2.87	1.13
ORP (Field)	-	-	-	-52	-42/-42	-	-	-117	-123
Nitrate (as N)	0.02	ND (0.02)	ND (0.02)	ND (0.02)	ND (0.05)/ND (0.05)	ND (0.050)	-	ND (0.050)	ND (0.050)
Iron (Dissolved)	ND (3.58)	7.12	15.4	0.715	6.14/5.81	7.39	-	20.5	11.7 J
Manganese (Dissolved)	-	-	-	-	-	-	-	0.769	0.667 J
Sulfate	31	6.7	48.3	9.8	5.3/5.8	12.8	-	ND (4.0)	ND (2.0)
Methane	-	-	-	-	-	-	-	0.29 D	1.1
Dissolved Organic Carbon (DOC)	-	-	-	-	-	-	-	11.8	-
pH (Field)	6.7	6.8	-	6.71	6.21/6.21	7.3	7.1	6.85	8.26
Conductivity (Field)	-	-	-	853	887/887	908	900	0.883	0.722

MW-18B	6/23/98	6/2/00	6/21/02	6/24/02	7/1/04	3/1/05	6/30/05	12/14/05	5/18/06	6/26/06
Benzene	ND (0.2)	ND (5.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	ND (0.005)	ND (0.0005)	ND (0.0010)	ND (0.0010)
Ethyl Ether	4	4.7	2.7	-	5.1 J	1.90	3.1	1.9 J	3.1 D	2.7 J
Dissolved Oxygen (Field)	-	-	-	-	1.92	9.42/9.42	-	-	3.61	1.7
ORP (Field)	-	-	-	-	-90	-91/-91	-	-	-134	-151
Nitrate (as N)	ND (0.02)	ND (0.02)	-	ND (0.02)	ND (0.02)	ND (0.05)	ND (0.050)	-	0.094	ND (0.050)
Iron (Dissolved)	ND (3.08)	25.5	-	30.8	0.0234 B	5.8	8.41	-	36.5	5.81 J
Manganese (Dissolved)	-	-	-	-	-	-	-	-	1.63	0.813 J
Sulfate	8.1	ND (2)	-	ND (1)	1.7	39.2	ND (2.0)	-	ND (4.0)	ND (2.0)
Methane	-	-	-	-	-	-	-	-	5.1 D	4.9
Dissolved Organic Carbon (DOC)	-	-	-	-	-	-	-	-	16.8	-
pH (Field)	6.6	6.7	-	-	6.47	6.23/6.23	6.87	7.7	6.79	7.83
Conductivity (Field)	-	-	-	-	1020	960/960	950	900	0.951	0.95

MW-13A	6/25/98	6/6/00	6/20/02	7/8/04	3/1/05	6/30/05	12/14/05	6/26/06
Benzene	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0005)	ND (0.0010)
Ethyl Ether	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.007 J	0.0053 J	0.0013 J	ND (0.0060)
Dissolved Oxygen (Field)	-	-	-	-	11.21/11.21	-	-	3.06
ORP (Field)	-	-	-	-	124/124	-	-	-111
Nitrate (as N)	-	-	0.08	0.16	0.26	0.14	-	ND (0.050)
Iron (Dissolved)	-	-	0.488	3.39	ND (0.08)	0.186	-	ND (0.005) UJ
Manganese (Dissolved)	-	-	-	-	-	-	-	ND (0.0030) UJ
Sulfate	-	-	32.7	14.3	28.5	30.6	-	26.1
Methane	-	-	-	-	-	-	-	ND (0.0010)
pH (Field)	-	-	-	-	4.84/4.84	7.08	7.4	8.07
Conductivity (Field)	-	-	-	-	2040/2040	1980	1700	1.73

MW-13B	12/9/97	6/25/98	12/15/98	6/14/99	12/8/99	6/6/00	12/20/00	7/2/01	12/7/01	6/20/02	12/18/02	6/26/03	12/2/03	7/7/04	12/7/04	6/29/05	12/15/05	5/18/06	6/26/06
Benzene	ND (0.025)	ND (0.56)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)/ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)/ND (0.005)	ND (0.0005)	ND (0.0010)	ND (0.0010)
Ethyl Ether	0.85	0.81	0.81	0.88	0.86	0.5	0.3	0.59	0.74 /0.7 J	0.1	0.1	0.48	0.34 J	0.54 J	0.31	0.18/0.17	0.13 J	0.77 D	0.6
Dissolved Oxygen (Field)	-	-	-	-	-	-	-	-	-	-	-	-	-	2.58	-	-	-	7.34	1
ORP (Field)	-	-	-	-	-	-	-	-	-	-	-	-	-	-90	-	-	-	-109	-130
Nitrate (as N)	-	0.07	-	-	-	0.03	-	-	-	0.13	-	-	-	0.29	-	0.10/0.10	-	ND (0.050)	ND (0.050)
Iron (Dissolved)	-	ND (13.8)	-	-	-	8.77	-	-	-	1.33	-	-	-	0.273	-	1.11/1.36	-	15.8	5.8 J
Manganese (Dissolved)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.06	1.05 J
Sulfate	-	11.8	-	-	-	ND (2)	-	-	-	-	-	-	-	4.5	-	9.4/5.8	-	9.7	10.4
Methane	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.6 D	2.4
Dissolved Organic Carbon (DOC)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16.7	-
pH (Field)	-	6.8	-	-	-	6.8	-	6.84	-	-	7.5	7.8	-	6.62	6.6	7.05	7.4	6.81	6.07
Conductivity (Field)	-	-	-	-	-	-	-	563	-	-	883	4570	-	964	940	738	800	0.708	0.73

MW-12B	5/25/98	6/6/00	6/20/02	7/8/04	3/1/05	6/29/05	12/14/05	5/18/06	6/26/06
Benzene	ND (0.05)	ND (0.025)/ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0005)	ND (0.0010)	ND (0.0020)
Ethyl Ether	1.2	0.8/0.82	0.75	1.1 J	0.13	0.89	0.079 J	0.32 D	0.14
Dissolved Oxygen (Field)	-	-	-	4.81	9.77/9.77	-	-	5.22	1.21
ORP (Field)	-	-	-	-75	-54/-54	-	-	-116	-148
Nitrate (as N)	ND (0.02)	ND (0.02)/ND (0.02)	0.03	0.3	0.087	0.063	-	ND (0.050)	ND (0.050)
Iron (Dissolved)	34	13.3/11.8	22.3	1.87	11.9	7.33	-	4.45	4.43 J
Manganese (Dissolved)	-	-	-	-	-	-	-	0.468	0.585 J
Sulfate	184	110/109	85.8	81.3	86.4	85.0	-	79.4	71.8
Methane	-	-	-	-	-	-	-	0.12 E	0.066
Dissolved Organic Carbon (DOC)	-	-	-	-	-	-	-	5.2	-
pH (Field)	6.8	6.7/6.8	-	6.54	5/6	6.76	6.6	6.83	7.73
Conductivity (Field)	-	-	-	1320	1150/1150	1140	1300	1.07	1.46

MW-7B	6/25/98	6/2/00	6/20/02	7/1/04	6/26/06
Benzene	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)/ND (0.005)	ND (0.0010)
Ethyl Ether	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ/ND (0.01) UJ	ND (0.0060)
Dissolved Oxygen (Field)	-	-	-	3.01	0.42
ORP (Field)	-	-	-	-90	-314
Nitrate (as N)	0.02	ND (0.02)	0.05	ND (0.02)/ND (0.02)	-
Iron (Dissolved)	29.5	17.5	1.21	ND (0.0084)/ND (0.0084)	-
Sulfate	121	207	248	227/197	-
pH (Field)	6.8	6.9	-	6.53	7.28
Conductivity (Field)	-	-	-	1070	1.13

MW-6B	6/25/98	6/2/00	6/20/02	7/8/04	6/26/06
Benzene	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0010)
Ethyl Ether	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.0060)
Dissolved Oxygen (Field)	-	-	-	2.89	1.01
ORP (Field)	-	-	-	-48	12
Nitrate (as N)	ND (0.02)	0.07	0.55	0.07	-
Iron (Dissolved)	38.2	19.3	0.862	0.729	-
Sulfate	247	263	255	229	-
pH (Field)	6.6	6.8	-	6.44	7.5
Conductivity (Field)	-	-	-	1040	0.727

MW-7B	6/25/98	6/2/00	6/20/02
Benzene	ND (0.01)	ND (0.005)	ND (0.005)
Ethyl Ether	ND (0.01)	ND (0.01)	ND (0.01)
Dissolved Oxygen (Field)	-	-	-
ORP (Field)	-	-	-
Nitrate (as N)	0.02	ND (0.02)	0.05
Iron (Dissolved)	29.5	17.5	1.21
Sulfate	121	207	248
pH (Field)	6.8	6.9	-
Conductivity (Field)	-	-	-

0 100 300ft

LEGEND

- APPROXIMATE AREAL LIMIT OF LANDFILL
- MW-13B MONITORING WELL LOCATION
- BACKGROUND MONITORING WELL LOCATION

MW-7B	6/25/98	6/2/00	6/20/02
Benzene	ND (0.01)	ND (0.005)	ND (0.005)
Ethyl Ether	ND (0.01)	ND (0.01)	ND (0.01)
Dissolved Oxygen (Field)	-	-	-
ORP (Field)	-	-	-
Nitrate (as N)	0.02	ND (0.02)	0.05
Iron (Dissolved)	29.5	17.5	1.21
Sulfate	121	207	248
pH (Field)	6.9	6.9	-
Conductivity (Field)	-	-	-

SAMPLE LOCATION
SAMPLE DATE
RESULT
PARAMETER

Chemical Name	Chemical Unit
Benzene	mg/L
Ethyl Ether	mg/L
Dissolved Oxygen (Field)	mg/L
ORP (Field)	millivolts
Nitrate (as N)	mg/L
Iron (Dissolved)	mg/L
Manganese (Dissolved)	mg/L
Sulfate	mg/L
Methane	mg/L
Dissolved Organic Carbon (DOC)	mg/L
pH (Field)	S.U.
Conductivity (Field)	umhos/cm

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

STERLING SITE 3
EAST GREENBUSH, NEW YORK

SUMMARY OF NATURAL ATTENUATION PARAMETER RESULTS

CONESTOGA-ROVERS & ASSOCIATES

Source Reference:
DAMES & MOORE WILLOW GROVE, PENNSYLVANIA

Project Manager:	Reviewed By:	Date: SEPTEMBER 2006	
Scale: 1"=300'	Project №: 07830-72	Report №: 071	Drawing №: 3.1

07830-72(071)GN-WA003 OCT 03/2006

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*MW-1S*	*MW-2S*	*MW-2S*	*MW-3SR*	*MW-3SR*	*MW-3SR*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-5B*	*MW-5B*	*MW-6A*
Location:		*OU1 - D/G*	*OU1 - D/G*	*OU1 - D/G*	*OU1 - D/G*	*OU1 - D/G*	*OU1 - D/G*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*OU1 - D/G*
Sample Date:		*6/26/2006*	*5/18/2006*	*6/27/2006*	*5/18/2006*	*5/31/2006*	*6/27/2006*	*5/18/2006*	*5/31/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*6/26/2006*
Parameter	*Units*												
Volatile Organics													
1,1,1-Trichloroethane	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.0050) UJ	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050) UJ	-	ND (0.0050) UJ	ND (0.0050) UJ
1,1,2-Trichloroethane	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
1,1-Dichloroethane	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
1,1-Dichloroethene	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
1,2-Dichloroethane	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
1,2-Dichloropropane	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01) UJ	-	ND (0.01)	-	-	ND (0.01)	-	-	ND (0.01) UJ	-	ND (0.01) UJ	ND (0.01) UJ
2-Hexanone	mg/L	ND (0.01) UJ	-	ND (0.01)	-	-	ND (0.01)	-	-	ND (0.01) UJ	-	ND (0.01) UJ	ND (0.01) UJ
2-Methylthiophene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
3-Methylthiophene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01) UJ	-	ND (0.01)	-	-	ND (0.01)	-	-	ND (0.01) UJ	-	ND (0.01) UJ	ND (0.01) UJ
Acetone	mg/L	ND (0.01)	-	ND (0.01) UJ	-	-	0.0028 J	-	-	ND (0.01)	-	0.0028 J	ND (0.01)
Benzene	mg/L	ND (0.0010)	0.00064 J	0.00080 J	ND (0.0010)	-	0.00042 J	ND (0.0010)	-	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)
Bromodichloromethane	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
Bromoform	mg/L	ND (0.0050)	-	ND (0.0050) UJ	-	-	ND (0.0050) UJ	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	-	ND (0.01) UJ	-	-	ND (0.01) UJ	-	-	ND (0.01)	-	ND (0.01)	ND (0.01)
Carbon disulfide	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
Carbon tetrachloride	mg/L	ND (0.0050)	-	ND (0.0050) UJ	-	-	ND (0.0050) UJ	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
Chlorobenzene	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
Chloroethane	mg/L	ND (0.01)	-	ND (0.01) UJ	-	-	ND (0.01) UJ	-	-	ND (0.01)	-	ND (0.01)	ND (0.01)
Chloroform (Trichloromethane)	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
Chloromethane (Methyl Chloride)	mg/L	ND (0.01) UJ	-	ND (0.01) UJ	-	-	ND (0.01) UJ	-	-	ND (0.01) UJ	-	ND (0.01) UJ	ND (0.01) UJ
cis-1,2-Dichloroethene	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
cis-1,3-Dichloropropene	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
Dibromochloromethane	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
Ethyl Ether	mg/L	ND (0.0050)	0.26 D	0.38	ND (0.0050)	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Ethylbenzene	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
m&p-Xylene	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
Methylene chloride	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
o-Xylene	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
Styrene	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
Tetrachloroethene	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
Toluene	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
trans-1,2-Dichloroethene	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
trans-1,3-Dichloropropene	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
Trichloroethene	mg/L	ND (0.0050)	-	ND (0.0050)	-	-	ND (0.0050)	-	-	ND (0.0050)	-	ND (0.0050)	ND (0.0050)
Vinyl acetate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	ND (0.01)	-	0.00044 J	-	-	ND (0.01)	-	-	ND (0.01)	-	ND (0.01)	ND (0.01)
Xylene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics													
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	ND (0.36)	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	ND (0.36)	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	ND (0.14)	-	-	-	-	-	-

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample Date:* / *Parameter*	*Units*	*MW-1S OU1 - D/G 6/26/2006*	*MW-2S OU1 - D/G 5/18/2006*	*MW-2S OU1 - D/G 6/27/2006*	*MW-3SR OU1 - D/G 5/18/2006*	*MW-3SR OU1 - D/G 5/31/2006*	*MW-3SR OU1 - D/G 6/27/2006*	*MW-4B Upgradient 5/18/2006*	*MW-4B Upgradient 5/31/2006*	*MW-4B Upgradient 6/26/2006*	*MW-5B Upgradient 5/18/2006*	*MW-5B Upgradient 6/26/2006*	*MW-6A OU1 - D/G 6/26/2006*
3-Nitroaniline	mg/L	-	-	-	-	-	ND (0.36)	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	ND (0.36)	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	-	-	ND (0.36)	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	ND (0.36)	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	ND (0.33)	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	ND (0.36)	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Phenol	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	ND (0.073)	-	-	-	-	-	-
Metals													
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Iron (Dissolved)	mg/L	-	26.1	2.23 J	0.0552	-	ND (0.050) UJ	19.9	-	0.572 J	37.1	-	-
Manganese (Dissolved)	mg/L	-	3.09	1.88 J	0.0147	-	0.125 J	1.14	-	0.118 J	3.16	-	-
Gases													
Methane	mg/L	-	1 E	6.2	0.0075	-	0.27	0.0028	-	0.022	3.3 D	-	-
Biological													
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry													
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*MW-1S*	*MW-2S*	*MW-2S*	*MW-3SR*	*MW-3SR*	*MW-3SR*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-5B*	*MW-5B*	*MW-6A*
Location:		*OU1 - D/G*	*OU1 - D/G*	*OU1 - D/G*	*OU1 - D/G*	*OU1 - D/G*	*OU1 - D/G*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*OU1 - D/G*
Sample Date:		*6/26/2006*	*5/18/2006*	*6/27/2006*	*5/18/2006*	*5/31/2006*	*6/27/2006*	*5/18/2006*	*5/31/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*6/26/2006*
Parameter	*Units*												
Alkalinity, Total (As CaCO3)	mg/L	-	170	227	84.4	-	137	119	-	175	258	-	-
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	-	24.0	-	10.7	-	-	3.2	-	-	12.1	-	-
Nitrate (as N)	mg/L	-	ND (0.050)	ND (0.050)	-	0.25	0.30	-	ND (0.050)	ND (0.050)	ND (0.050)	-	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
pH	s.u.	-	-	-	-	-	-	-	-	-	-	-	-
pH (water)	s.u.	-	-	-	-	-	-	-	-	-	-	-	-
Phosphate, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	3.3	29.0	5.9	-	2.4	22.6	-	14.4	ND (4.0)	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Sulfite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Total Dissolved Solids (TDS)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Total Kjeldahl Nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Field Parameters													
Conductivity Field	umhos/cm	0.434	0.621	0.653	0.241	-	0.313	0.397	-	0.306	0.717	0.729	0.421
Dissolved Oxygen	mg/L	1.02	4.66	0.24	3.89	-	8.22	5.65	-	0.89	2.98	1.06	4.41
OVA Reading	ppm	-	-	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	68	-90	-98	55	-	286	-93	-	-63	-124	-111	34
pH Field	s.u.	7.18	6.43	7.15	6.6	-	6.89	6.49	-	7.49	6.62	8.04	8.21
Turbidity	ntu	3	28	17	999 >	-	2	999 >	-	17	5.4	11	22

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*MW-6B*	*MW-6B*	*MW-7B*	*MW-8B*	*MW-9A*	*MW-9B*	*MW-9B*	*MW-10B*	*MW-11B*	*MW-12B*	*MW-12B*	*MW-13A*
Location:		*OU1 - D/G*	*OU1 - D/G*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample Date:		*5/18/2006*	*6/26/2006*	*6/26/2006*	*6/26/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*6/27/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*6/26/2006*
Parameter	*Units*												
Volatile Organics													
1,1,1-Trichloroethane	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
1,1,2,2-Tetrachloroethane	mg/L	-	ND (0.0050) UJ	ND (0.0050) UJ	ND (0.0050) UJ	ND (0.0050) UJ	-	ND (0.0050) UJ	ND (0.01)	ND (0.0050) UJ	-	ND (0.01)	ND (0.0050) UJ
1,1,2-Trichloroethane	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
1,1-Dichloroethane	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
1,1-Dichloroethene	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
1,2-Dichloroethane	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
1,2-Dichloropropane	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
2-Butanone (Methyl Ethyl Ketone)	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
2-Hexanone	mg/L	-	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ	-	ND (0.01) UJ	ND (0.02)	ND (0.01) UJ	-	ND (0.02)	ND (0.01) UJ
2-Methylthiophene	mg/L	-	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ	-	ND (0.01) UJ	ND (0.02)	ND (0.01) UJ	-	ND (0.02)	ND (0.01) UJ
3-Methylthiophene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Acetone	mg/L	-	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ	-	ND (0.01) UJ	ND (0.02)	ND (0.01) UJ	-	ND (0.02)	ND (0.01) UJ
Benzene	mg/L	ND (0.0010)	ND (0.01)	ND (0.01)	0.0046 J	ND (0.01)	-	ND (0.01)	ND (0.02) UJ	ND (0.01)	-	ND (0.02)	0.0045 J
Bromodichloromethane	mg/L	-	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)	ND (0.0010)	ND (0.0020)	ND (0.0010)
Bromoform	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Bromomethane (Methyl Bromide)	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01) UJ	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Carbon disulfide	mg/L	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.02) UJ	ND (0.01)	-	ND (0.02)	ND (0.01)
Carbon tetrachloride	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Chlorobenzene	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01) UJ	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Chloroethane	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Chloroform (Trichloromethane)	mg/L	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.02) UJ	ND (0.01)	-	ND (0.02)	ND (0.01)
Chloromethane (Methyl Chloride)	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
cis-1,2-Dichloroethene	mg/L	-	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ	-	ND (0.01) UJ	ND (0.02) UJ	ND (0.01) UJ	-	ND (0.02) UJ	ND (0.01) UJ
cis-1,3-Dichloropropene	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Dibromochloromethane	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Ethyl Ether	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Ethylbenzene	mg/L	0.0013 J	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.012	0.01	0.0031 J	0.011	0.32 D	0.14	ND (0.0050)
m&p-Xylene	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Methylene chloride	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
o-Xylene	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01) U	ND (0.0050)
Styrene	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Tetrachloroethene	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Toluene	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
trans-1,2-Dichloroethene	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	0.0043 J	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
trans-1,3-Dichloropropene	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Trichloroethene	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Vinyl acetate	mg/L	-	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	ND (0.01)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Vinyl chloride	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Xylene (total)	mg/L	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.02)	ND (0.01)	-	ND (0.02)	ND (0.01)
	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics													
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample Date:* / *Parameter*	*Units*	*MW-6B OU1 - D/G 5/18/2006*	*MW-6B OU1 - D/G 6/26/2006*	*MW-7B OU2 6/26/2006*	*MW-8B OU2 6/26/2006*	*MW-9A OU2 6/26/2006*	*MW-9B OU2 5/18/2006*	*MW-9B OU2 6/26/2006*	*MW-10B OU2 6/27/2006*	*MW-11B OU2 6/26/2006*	*MW-12B OU2 5/18/2006*	*MW-12B OU2 6/26/2006*	*MW-13A OU2 6/26/2006*
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Metals													
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Iron (Dissolved)	mg/L	0.274	0.11 J	-	-	-	17	7.44 J	-	-	4.45	4.43 J	ND (0.050) UJ
Manganese (Dissolved)	mg/L	0.0380	0.0226 J	-	-	-	1.26	1.12 J	-	-	0.499	0.585 J	ND (0.0030) UJ
Gases													
Methane	mg/L	0.07 E	0.0036	-	-	-	0.95 E	4.4 J	-	-	0.12 E	0.096	ND (0.0010)
Biological													
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry													
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*MW-6B*	*MW-6B*	*MW-7B*	*MW-8B*	*MW-9A*	*MW-9B*	*MW-9B*	*MW-10B*	*MW-11B*	*MW-12B*	*MW-12B*	*MW-13A*
Location:		*OU1 - D/G*	*OU1 - D/G*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample Date:		*5/18/2006*	*6/26/2006*	*6/26/2006*	*6/26/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*6/27/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*6/26/2006*
Parameter	*Units*												
Alkalinity, Total (As CaCO3)	mg/L	121	147	-	-	-	130	64.2	-	-	160	106	271
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	6.8	-	-	-	-	7.3	-	-	-	5.2	-	-
Nitrate (as N)	mg/L	ND (0.050)	ND (0.050)	-	-	-	ND (0.050)	ND (0.050)	-	-	ND (0.050)	ND (0.050)	ND (0.050)
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
pH	s.u.	-	-	-	-	-	-	-	-	-	-	-	-
pH (water)	s.u.	-	-	-	-	-	-	-	-	-	-	-	-
Phosphate, Total	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	19.2	14.9	-	-	-	ND (4.0)	ND (2.0)	-	-	79.4	71.9	25.1
Sulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Sulfite	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Total Dissolved Solids (TDS)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Total Kjeldahl Nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Total Suspended Solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Field Parameters													
Conductivity Field	umhos/cm	0.391	0.423	1.13	0.727	0.952	0.539	0.57	0.506	0.522	1.07	1.46	1.73
Dissolved Oxygen	mg/L	4.39	1.26	0.42	1.01	1.25	5.03	1.15	2.32	6.22	5.22	1.21	3.08
OVA Reading	ppm	-	-	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-25	-101	-314	12	79	-103	-122	82	115	-116	-148	-111
pH Field	s.u.	6.81	7.33	7.28	7.5	7.46	6.79	7.58	7.37	7.36	6.83	7.73	8.07
Turbidity	ntu	112	17	999 >	4	7	8	6	60	4	19.2	7	169

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*MW-13B*	*MW-13B*	*MW-15B*	*MW-16B*	*MW-16B*	*MW-17B*	*MW-17B*	*MW-18B*	*MW-19B*	*MW-19B*	*PZ-2A*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU1*
Sample Date:		*5/18/2006*	*6/26/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*4/6/2006*
Parameter	*Units*											
Volatile Organics												
1,1,1-Trichloroethane	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
1,1,2,2-Tetrachloroethane	mg/L	-	ND (0.0050) UJ	ND (0.0050) UJ	-	ND (0.0050) UJ	-	ND (0.1) UJ	ND (0.0050) UJ	-	ND (0.01)	ND (0.0050)
1,1,2-Trichloroethane	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
1,1-Dichloroethane	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	0.0041 J
1,1-Dichloroethene	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
1,2-Dichloroethene	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
1,2-Dichloropropane	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
2-Butanone (Methyl Ethyl Ketone)	mg/L	-	ND (0.01) UJ	ND (0.01) UJ	-	ND (0.01) UJ	-	ND (0.2) UJ	ND (0.01) UJ	-	ND (0.02)	ND (0.01)
2-Hexanone	mg/L	-	ND (0.01) UJ	ND (0.01) UJ	-	ND (0.01) UJ	-	ND (0.2) UJ	ND (0.01) UJ	-	ND (0.02)	ND (0.01)
2-Methylthiophene	mg/L	-	-	-	-	-	-	-	-	-	-	ND (0.01)
3-Methylthiophene	mg/L	-	-	-	-	-	-	-	-	-	-	ND (0.01)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	-	ND (0.01) UJ	ND (0.01) UJ	-	ND (0.01) UJ	-	ND (0.2) UJ	ND (0.01) UJ	-	ND (0.02)	ND (0.01)
Acetone	mg/L	-	ND (0.01)	ND (0.01)	-	ND (0.01)	-	ND (0.2)	ND (0.01)	-	ND (0.02)	ND (0.01)
Benzene	mg/L	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.0010)	ND (0.02)	ND (0.0010)	ND (0.0010)	ND (0.0020)	0.0051
Bromodichloromethane	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Bromoform	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Bromomethane (Methyl Bromide)	mg/L	-	ND (0.01)	ND (0.01)	-	ND (0.01)	-	ND (0.2)	ND (0.01)	-	ND (0.02)	ND (0.01)
Carbon disulfide	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Carbon tetrachloride	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Chlorobenzene	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Chloroethane	mg/L	-	ND (0.01)	ND (0.01)	-	ND (0.01)	-	ND (0.2)	ND (0.01)	-	ND (0.02)	ND (0.01)
Chloroform (Trichloromethane)	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Chloromethane (Methyl Chloride)	mg/L	-	ND (0.01) UJ	ND (0.01) UJ	-	ND (0.01) UJ	-	ND (0.2) UJ	ND (0.01) UJ	-	ND (0.02) UJ	ND (0.01)
cis-1,2-Dichloroethene	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
cis-1,3-Dichloropropene	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Dibromochloromethane	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Ethyl Ether	mg/L	0.77 D	0.6	0.0082	3.1 D	2.7 J	2 D	1.4	0.36	0.081 D	0.12	0.86 D
Ethylbenzene	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
m&p-Xylene	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Methylene chloride	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1) U	ND (0.0050)	-	ND (0.01) U	ND (0.0050)
o-Xylene	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Styrene	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Tetrachloroethene	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Toluene	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
trans-1,2-Dichloroethene	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
trans-1,3-Dichloropropene	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Trichloroethene	mg/L	-	ND (0.0050)	ND (0.0050)	-	ND (0.0050)	-	ND (0.1)	ND (0.0050)	-	ND (0.01)	ND (0.0050)
Vinyl acetate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	-	ND (0.01)	ND (0.01)	-	ND (0.01)	-	ND (0.2)	ND (0.01)	-	ND (0.02)	ND (0.01)
Xylene (total)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics												
1,2,4-Trichlorobenzene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
1,2-Dichlorobenzene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
1,3-Dichlorobenzene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
1,4-Dichlorobenzene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
2,4,5-Trichlorophenol	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
2,4,6-Trichlorophenol	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
2,4-Dichlorophenol	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
2,4-Dimethylphenol	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
2,4-Dinitrophenol	mg/L	-	ND (0.36) UJ	-	-	-	-	-	-	-	-	ND (0.05)
2,4-Dinitrotoluene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
2,6-Dinitrotoluene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
2-Chloronaphthalene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
2-Chlorophenol	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
2-Methylnaphthalene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
2-Methylphenol	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
2-Nitroaniline	mg/L	-	ND (0.36)	-	-	-	-	-	-	-	-	ND (0.05)
2-Nitrophenol	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
3,3'-Dichlorobenzidine	mg/L	-	ND (0.14)	-	-	-	-	-	-	-	-	ND (0.02)

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*MW-13B*	*MW-13B*	*MW-15B*	*MW-16B*	*MW-16B*	*MW-17B*	*MW-17B*	*MW-18B*	*MW-19B*	*MW-19B*	*PZ-2A*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU1*
Sample Date:		*5/18/2006*	*6/26/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*4/6/2006*
Parameter	*Units*											
3-Nitroaniline	mg/L	-	ND (0.36)	-	-	-	-	-	-	-	-	ND (0.05)
4,6-Dinitro-2-methylphenol	mg/L	-	ND (0.36)	-	-	-	-	-	-	-	-	ND (0.05)
4-Bromophenyl phenyl ether	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
4-Chloro-3-methylphenol	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
4-Chloroaniline	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	0.004 J
4-Chlorophenyl phenyl ether	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
4-Methylphenol	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	0.005 J
4-Nitroaniline	mg/L	-	ND (0.36)	-	-	-	-	-	-	-	-	ND (0.05)
4-Nitrophenol	mg/L	-	ND (0.36)	-	-	-	-	-	-	-	-	ND (0.05)
Acenaphthene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Acenaphthylene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Anthracene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Benzo(a)anthracene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Benzo(a)pyrene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Benzo(b)fluoranthene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Benzo(g,h,i)perylene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Benzo(k)fluoranthene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
bis(2-Chloroethyl)ether	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	0.002 J
bis(2-Ethylhexyl)phthalate	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Butyl benzylphthalate	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Carbazole	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Chrysene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Dibenz(a,h)anthracene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Dibenzofuran	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Diethyl phthalate	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Dimethyl phthalate	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Di-n-butylphthalate	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Di-n-octyl phthalate	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Fluoranthene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Fluorene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Hexachlorobenzene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Hexachlorobutadiene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Hexachlorocyclopentadiene	mg/L	-	ND (0.32)	-	-	-	-	-	-	-	-	ND (0.04)
Hexachloroethane	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Indeno(1,2,3-cd)pyrene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Isophorone	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Naphthalene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Nitrobenzene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
N-Nitrosodi-n-propylamine	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
N-Nitrosodiphenylamine	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Pentachlorophenol	mg/L	-	ND (0.36)	-	-	-	-	-	-	-	-	ND (0.05)
Phenanthrene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Phenol	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Pyrene	mg/L	-	ND (0.071)	-	-	-	-	-	-	-	-	ND (0.009)
Metals												
Iron	mg/L	-	-	-	-	-	-	-	-	-	-	2.7
Iron (Dissolved)	mg/L	15.8	5.6 J	-	36.5	5.81 J	20.8	11.7 J	-	8.95	0.957 J	0.25
Manganese (Dissolved)	mg/L	1.06	1.05 J	-	1.03	0.813 J	0.759	0.687 J	-	0.474	0.387 J	-
Gases												
Methane	mg/L	1.6 D	2.4	-	5.1 D	4.9	0.29 D	1.1	-	0.01	0.025	-
Biological												
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-
General Chemistry												
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	36000

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*MW-13B*	*MW-13B*	*MW-15B*	*MW-16B*	*MW-16B*	*MW-17B*	*MW-17B*	*MW-18B*	*MW-19B*	*MW-19B*	*PZ-2A*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU1*
Sample Date:		*5/18/2006*	*6/26/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*6/26/2006*	*5/18/2006*	*6/26/2006*	*4/6/2006*
Parameter	*Units*											
Alkalinity, Total (As CaCO3)	mg/L	224	179	-	276	273	192	190	-	164	192	502
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	20000
Dissolved Organic Carbon (DOC)	mg/L	16.7	-	-	16.8	-	11.8	-	-	4.1	-	-
Nitrate (as N)	mg/L	ND (0.050)	ND (0.050)	-	0.064	ND (0.050)	ND (0.050)	ND (0.050)	-	0.12	0.10	ND (0.050)
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-	-
pH	s.u.	-	-	-	-	-	-	-	-	-	-	-
pH (water)	s.u.	-	-	-	-	-	-	-	-	-	-	-
Phosphate, Total	mg/L	-	-	-	-	-	-	-	-	-	-	4.4
Sulfate	mg/L	9.7	10.4	-	ND (4.0)	ND (2.0)	ND (4.0)	ND (2.0)	-	116	92.9	88.2
Sulfide	mg/L	-	-	-	-	-	-	-	-	-	-	-
Sulfite	mg/L	-	-	-	-	-	-	-	-	-	-	-
Total Dissolved Solids (TDS)	mg/L	-	-	-	-	-	-	-	-	-	-	1410
Total Kjeldahl Nitrogen (TKN)	mg/L	-	-	-	-	-	-	-	-	-	-	58.5
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	-	-	-	-	-	-	-	-	-	-	103
Total Suspended Solids (TSS)	mg/L	-	-	-	-	-	-	-	-	-	-	ND (4.0)
Field Parameters												
Conductivity Field	umhos/cm	0.708	0.75	0.585	0.951	0.96	0.653	0.722	0.848	0.68	0.723	-
Dissolved Oxygen	mg/L	7.34	1	1.95	3.61	1.7	2.97	1.11	1.29	5.53	1.13	-
OVA Reading	ppm	-	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-109	-130	-46	-134	-151	-117	-123	-120	-68	-111	-
pH Field	s.u.	6.81	8.07	8.77	6.79	7.83	6.85	9.98	8.71	6.95	9.94	-
Turbidity	ntu	41.2	14	8	28	14	15	44	7	86	71	-

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*PZ-2A*	*PZ-14*	*PZ-14*	*PZ-14*	*PZ-15*	*PZ-15*	*PZ-16*	*PZ-16*
Location:		*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*
Sample Date:		*6/27/2006*	*4/7/2006*	*5/18/2006*	*6/27/2006*	*4/7/2006*	*6/27/2006*	*4/7/2006*	*6/27/2006*
Parameter	*Units*								
Volatile Organics									
1,1,1-Trichloroethane	mg/L	ND (0.12)	ND (0.021)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.12)	ND (0.039)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
1,1,2-Trichloroethane	mg/L	ND (0.12)	ND (0.034)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
1,1-Dichloroethane	mg/L	ND (0.12)	ND (0.022)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
1,1-Dichloroethene	mg/L	ND (0.12)	ND (0.023)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
1,2-Dichloroethane	mg/L	ND (0.12)	ND (0.037)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
1,2-Dichloropropane	mg/L	ND (0.12)	ND (0.026)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	0.012 J
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.25)	ND (0.2)	-	ND (0.2) UJ	ND (0.01)	ND (0.02)	ND (0.025)	ND (0.05)
2-Hexanone	mg/L	ND (0.25)	ND (0.19)	-	ND (0.2) UJ	ND (0.01)	ND (0.02)	ND (0.024)	ND (0.05)
2-Methylthiophene	mg/L	-	ND (0.01)	-	-	ND (0.01)	-	ND (0.01)	-
3-Methylthiophene	mg/L	-	ND (0.01)	-	-	ND (0.01)	-	ND (0.01)	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.25)	ND (0.19)	-	ND (0.2) UJ	ND (0.01)	ND (0.02)	ND (0.023)	ND (0.05)
Acetone	mg/L	ND (0.25) UJ	ND (0.2)	-	ND (0.2) UJ	0.0032 J	ND (0.02) UJ	ND (0.025)	ND (0.05) UJ
Benzene	mg/L	0.13	11 D	1.6 D	1.7 J	0.0013	ND (0.0020)	0.054	0.027
Bromodichloromethane	mg/L	ND (0.12)	ND (0.031)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
Bromoform	mg/L	ND (0.12) UJ	ND (0.02)	-	ND (0.1) UJ	ND (0.0050)	ND (0.01) UJ	ND (0.0050)	ND (0.025) UJ
Bromomethane (Methyl Bromide)	mg/L	ND (0.25) UJ	ND (0.022)	-	ND (0.2) UJ	ND (0.01)	ND (0.02) UJ	ND (0.01)	ND (0.05) UJ
Carbon disulfide	mg/L	ND (0.12)	ND (0.038)	-	ND (0.1)	0.00056 J	ND (0.01)	ND (0.0050)	ND (0.025)
Carbon tetrachloride	mg/L	ND (0.12) UJ	ND (0.021)	-	ND (0.1) UJ	ND (0.0050)	ND (0.01) UJ	ND (0.0050)	0.0094 J
Chlorobenzene	mg/L	ND (0.12)	ND (0.025)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
Chloroethane	mg/L	ND (0.25) UJ	ND (0.026)	-	ND (0.2) UJ	ND (0.01)	ND (0.02) UJ	ND (0.01)	ND (0.05) UJ
Chloroform (Trichloromethane)	mg/L	ND (0.12)	ND (0.027)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	0.0031 J
Chloromethane (Methyl Chloride)	mg/L	ND (0.25) UJ	ND (0.028)	-	ND (0.2)	ND (0.01)	ND (0.02) UJ	ND (0.01)	ND (0.05) UJ
cis-1,2-Dichloroethene	mg/L	ND (0.12)	ND (0.029)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
cis-1,3-Dichloropropene	mg/L	ND (0.12)	ND (0.028)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
Dibromochloromethane	mg/L	ND (0.12)	ND (0.026)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
Ethyl Ether	mg/L	3.2	0.48	0.12 DJ	0.1	0.0018 J	ND (0.01)	0.13	ND (0.025)
Ethylbenzene	mg/L	ND (0.12)	ND (0.028)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
m&p-Xylene	mg/L	ND (0.12)	ND (0.053)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0066)	ND (0.025)
Methylene chloride	mg/L	ND (0.12)	ND (0.035)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
o-Xylene	mg/L	ND (0.12)	ND (0.022)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
Styrene	mg/L	ND (0.12)	ND (0.025)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
Tetrachloroethene	mg/L	ND (0.12)	ND (0.029)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
Toluene	mg/L	ND (0.12)	ND (0.028)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	0.0030 J
trans-1,2-Dichloroethene	mg/L	ND (0.12)	ND (0.027)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
trans-1,3-Dichloropropene	mg/L	ND (0.12)	ND (0.029)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
Trichloroethene	mg/L	ND (0.12)	ND (0.026)	-	ND (0.1)	ND (0.0050)	ND (0.01)	ND (0.0050)	ND (0.025)
Vinyl acetate	mg/L	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	ND (0.25)	ND (0.019)	-	ND (0.2)	ND (0.01)	ND (0.02)	ND (0.01)	ND (0.05)
Xylene (total)	mg/L	-	-	-	-	-	-	-	-
Semi-Volatile Organics									
1,2,4-Trichlorobenzene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
1,2-Dichlorobenzene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
1,3-Dichlorobenzene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
1,4-Dichlorobenzene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
2,4,5-Trichlorophenol	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
2,4,6-Trichlorophenol	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
2,4-Dichlorophenol	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
2,4-Dimethylphenol	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	0.003 J	ND (0.073)
2,4-Dinitrophenol	mg/L	ND (0.37)	ND (0.05)	-	ND (0.54)	ND (0.05)	ND (0.38)	0.005 J	ND (0.073)
2,4-Dinitrotoluene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.05)	ND (0.36)
2,6-Dinitrotoluene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
2-Chloronaphthalene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
2-Chlorophenol	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
2-Methylnaphthalene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
2-Methylphenol	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	0.002 J	ND (0.073)
2-Nitroaniline	mg/L	ND (0.37)	ND (0.05)	-	ND (0.54)	ND (0.05)	ND (0.38)	ND (0.05)	ND (0.36)
2-Nitrophenol	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
3,3'-Dichlorobenzidine	mg/L	ND (0.15)	ND (0.02)	-	ND (0.22)	ND (0.02)	ND (0.15)	ND (0.02)	ND (0.14)

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*PZ-2A*	*PZ-14*	*PZ-14*	*PZ-14*	*PZ-15*	*PZ-15*	*PZ-16*	*PZ-16*
Location:		*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*
Sample Date:		*6/27/2006*	*4/7/2006*	*5/18/2006*	*6/27/2006*	*4/7/2006*	*6/27/2006*	*4/7/2006*	*6/27/2006*
Parameter	***Units***								
3-Nitroaniline	mg/L	ND (0.37)	ND (0.05)	-	ND (0.54)	ND (0.05)	ND (0.38)	ND (0.05)	ND (0.36)
4,6-Dinitro-2-methylphenol	mg/L	ND (0.37)	ND (0.05)	-	ND (0.54)	ND (0.05)	ND (0.38)	ND (0.05)	ND (0.36)
4-Bromophenyl phenyl ether	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
4-Chloro-3-methylphenol	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
4-Chloroaniline	mg/L	0.014 J	0.02	-	0.015 J	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
4-Chlorophenyl phenyl ether	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
4-Methylphenol	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	0.002 J	ND (0.076)	ND (0.009)	ND (0.073)
4-Nitroaniline	mg/L	ND (0.37)	ND (0.05)	-	ND (0.54)	ND (0.05)	ND (0.38)	ND (0.05)	ND (0.36)
4-Nitrophenol	mg/L	ND (0.37)	ND (0.05)	-	ND (0.54)	ND (0.05)	ND (0.38)	ND (0.05)	ND (0.36)
Acenaphthene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Acenaphthylene	mg/L	0.005 J	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Anthracene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Benzo(a)anthracene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	0.0009 J	ND (0.076)	ND (0.009)	ND (0.073)
Benzo(a)pyrene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	0.0006 J	ND (0.076)	ND (0.009)	ND (0.073)
Benzo(b)fluoranthene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	0.0007 J	ND (0.076)	ND (0.009)	ND (0.073)
Benzo(g,h,i)perylene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Benzo(k)fluoranthene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Benzoic acid	mg/L	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
bis(2-Chloroethyl)ether	mg/L	ND (0.074)	0.002 J	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
bis(2-Ethylhexyl)phthalate	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	0.003 J	ND (0.076)	ND (0.009)	ND (0.073)
Butyl benzylphthalate	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Carbazole	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Chrysene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	0.0006 J	ND (0.076)	ND (0.009)	ND (0.073)
Dibenz(a,h)anthracene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Dibenzofuran	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Diethyl phthalate	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Dimethyl phthalate	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Di-n-butylphthalate	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Di-n-octyl phthalate	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Fluoranthene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Fluorene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	0.001 J	ND (0.076)	ND (0.009)	ND (0.073)
Hexachlorobenzene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Hexachlorobutadiene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Hexachlorocyclopentadiene	mg/L	ND (0.33)	ND (0.04)	-	ND (0.48)	ND (0.04)	ND (0.34)	ND (0.04)	ND (0.33)
Hexachloroethane	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Indeno(1,2,3-cd)pyrene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Isophorone	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Naphthalene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Nitrobenzene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
N-Nitrosodi-n-propylamine	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
N-Nitrosodiphenylamine	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Pentachlorophenol	mg/L	ND (0.37)	ND (0.05)	-	ND (0.54)	ND (0.05)	ND (0.38)	ND (0.05)	ND (0.36)
Phenanthrene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	0.001 J	ND (0.076)	ND (0.009)	ND (0.073)
Phenol	mg/L	ND (0.074)	0.03	-	0.092 J	ND (0.009)	ND (0.076)	ND (0.009)	ND (0.073)
Pyrene	mg/L	ND (0.074)	ND (0.009)	-	ND (0.11)	0.001 J	ND (0.076)	ND (0.009)	ND (0.073)
Metals									
Iron	mg/L	-	66.4	-	-	118	-	59.7	-
Iron (Dissolved)	mg/L	10.3 J	7.5	67.8	2.28 J	0.17	5.46 J	1.0	1.23 J
Manganese (Dissolved)	mg/L	0.84 J	-	4.36	3.88 J	-	6.17 J	-	6.23 J
Gases									
Methane	mg/L	15	-	2.6 D	2.9	-	0.0061	-	ND (0.0010)
Biological									
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-
General Chemistry									
Aerobic Total Microbial Population	cfu/mL	-	1100	-	-	13000	-	27000	-

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Sample Location:		*PZ-2A*	*PZ-14*	*PZ-14*	*PZ-14*	*PZ-15*	*PZ-15*	*PZ-16*	*PZ-16*
Location:		*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*
Sample Date:		*6/27/2006*	*4/7/2006*	*5/18/2006*	*6/27/2006*	*4/7/2006*	*6/27/2006*	*4/7/2006*	*6/27/2006*
Parameter	*Units*								
Alkalinity, Total (As CaCO3)	mg/L	6200	188	55.6	284	242	218	279	323
Benzene Specific Microbial Population	cfu/mL	-	5800	-	-	13000	-	4100	-
Dissolved Organic Carbon (DOC)	mg/L	-	-	49.6	-	-	-	-	-
Nitrate (as N)	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)
Orthophosphate	mg/L	-	-	-	-	-	-	-	-
pH	s.u.	-	-	-	-	-	-	-	-
pH (water)	s.u.	-	-	-	-	-	-	-	-
Phosphate, Total	mg/L	-	11.8	-	-	17.6	-	12.2	-
Sulfate	mg/L	411	1570	1350	1380	227	134	435	462
Sulfide	mg/L	-	-	-	-	-	-	-	-
Sulfite	mg/L	-	-	-	-	-	-	-	-
Total Dissolved Solids (TDS)	mg/L	-	1890	-	-	498	-	850	-
Total Kjeldahl Nitrogen (TKN)	mg/L	-	42.2	-	-	2.0	-	7.6	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	-	65.7	-	-	8.6	-	21.3	-
Total Suspended Solids (TSS)	mg/L	-	463	-	-	11200	-	219	-
Field Parameters									
Conductivity Field	umhos/cm	2.92	-	2.42	2.08	-	0.809	-	1.28
Dissolved Oxygen	mg/L	1.24	-	4.59	1.68	-	1.09	-	2.63
OVA Reading	ppm	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-133	-	-123	-145	-	-84	-	-148
pH Field	s.u.	7.83	-	6.74	7.96	-	8.1	-	8.45
Turbidity	ntu	0	-	244	9	-	391	-	110

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*PZ-17*	*PZ-17*	*PZ-18*	*PZ-18*	*PZ-20*	*PZ-20*	*PZ-20*
Location:		*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*
Sample Date:		*4/7/2006*	*6/27/2006*	*4/6/2006*	*6/27/2006*	*4/6/2006*	*5/18/2006*	*6/27/2006*
Parameter	*Units*							
Volatile Organics								
1,1,1-Trichloroethane	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.013)	-	ND (0.4)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.024)	-	ND (0.4)
1,1,2-Trichloroethane	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.021)	-	ND (0.4)
1,1-Dichloroethane	mg/L	ND (0.0050)	ND (0.0050)	0.0039 J	0.0054 J	ND (0.014)	-	ND (0.4)
1,1-Dichloroethene	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.015)	-	ND (0.4)
1,2-Dichloroethene	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.023)	-	ND (0.4)
1,2-Dichloropropane	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.016)	-	ND (0.4)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.012)	ND (0.04)	ND (0.12)	-	ND (0.8)
2-Hexanone	mg/L	ND (0.01)	ND (0.01)	ND (0.012)	ND (0.04)	ND (0.12)	-	ND (0.8)
2-Methylthiophene	mg/L	ND (0.01)	-	ND (0.01)	-	ND (0.01)	-	-
3-Methylthiophene	mg/L	ND (0.01)	-	ND (0.01)	-	ND (0.01)	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.012)	ND (0.04)	ND (0.12)	-	ND (0.8)
Acetone	mg/L	0.0026 J	0.0030 J	ND (0.012)	ND (0.04) UJ	ND (0.12)	-	ND (0.8) UJ
Benzene	mg/L	0.0090	0.018	0.44	0.5	5.4 D	0.7 D	5.1
Bromodichloromethane	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.019)	-	ND (0.4)
Bromoform	mg/L	ND (0.0050)	ND (0.0050) UJ	ND (0.0050)	ND (0.02) UJ	ND (0.013)	-	ND (0.4) UJ
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.04) UJ	ND (0.014)	-	ND (0.8) UJ
Carbon disulfide	mg/L	0.00067 J	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.024)	-	ND (0.4)
Carbon tetrachloride	mg/L	ND (0.0050)	ND (0.0050) UJ	ND (0.0050)	ND (0.02) UJ	ND (0.013)	-	ND (0.4) UJ
Chlorobenzene	mg/L	0.00072 J	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.016)	-	ND (0.4)
Chloroethane	mg/L	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.04) UJ	ND (0.016)	-	ND (0.8) UJ
Chloroform (Trichloromethane)	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.017)	-	ND (0.4)
Chloromethane (Methyl Chloride)	mg/L	ND (0.01)	0.00059 J	ND (0.01)	ND (0.04) UJ	ND (0.017)	-	ND (0.8) UJ
cis-1,2-Dichloroethene	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.018)	-	ND (0.4)
cis-1,3-Dichloropropene	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.018)	-	ND (0.4)
Dibromochloromethane	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.016)	-	ND (0.4)
Ethyl Ether	mg/L	0.0068 J	0.0066	0.12	0.1	0.26	0.12 DJ	0.18 J
Ethylbenzene	mg/L	ND (0.0050)	0.00057 J	ND (0.0050)	ND (0.02)	ND (0.017)	-	ND (0.4)
m&p-Xylene	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.033)	-	ND (0.4)
Methylene chloride	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.022)	-	ND (0.4)
o-Xylene	mg/L	0.00073 J	0.0013 J	ND (0.0050)	ND (0.02)	ND (0.014)	-	ND (0.4)
Styrene	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.016)	-	ND (0.4)
Tetrachloroethene	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.018)	-	ND (0.4)
Toluene	mg/L	ND (0.0050)	0.00071 J	ND (0.0050)	0.0018 J	ND (0.017)	-	ND (0.4)
trans-1,2-Dichloroethene	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.017)	-	ND (0.4)
trans-1,3-Dichloropropene	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.018)	-	ND (0.4)
Trichloroethene	mg/L	ND (0.0050)	ND (0.0050)	ND (0.0050)	ND (0.02)	ND (0.016)	-	ND (0.4)
Vinyl acetate	mg/L	-	-	-	-	-	-	-
Vinyl chloride	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.04)	ND (0.012)	-	ND (0.8)
Xylene (total)	mg/L	-	-	-	-	-	-	-
Semi-Volatile Organics								
1,2,4-Trichlorobenzene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
1,2-Dichlorobenzene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
1,3-Dichlorobenzene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
1,4-Dichlorobenzene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
2,4,5-Trichlorophenol	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
2,4,6-Trichlorophenol	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
2,4-Dichlorophenol	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
2,4-Dimethylphenol	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
2,4-Dinitrophenol	mg/L	ND (0.05)	ND (0.37)	ND (0.05)	ND (0.37)	ND (0.05)	-	ND (0.37)
2,4-Dinitrotoluene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
2,6-Dinitrotoluene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
2-Chloronaphthalene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
2-Chlorophenol	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
2-Methylnaphthalene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
2-Methylphenol	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
2-Nitroaniline	mg/L	ND (0.05)	ND (0.37)	ND (0.05)	ND (0.37)	ND (0.05)	-	ND (0.37)
2-Nitrophenol	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
3,3'-Dichlorobenzidine	mg/L	ND (0.02)	ND (0.15)	ND (0.02)	ND (0.15)	ND (0.02)	-	ND (0.15)

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*PZ-17*	*PZ-17*	*PZ-18*	*PZ-18*	*PZ-20*	*PZ-20*	*PZ-20*
Location:		*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*
Sample Date:		*4/7/2006*	*6/27/2006*	*4/6/2006*	*6/27/2006*	*4/6/2006*	*5/18/2006*	*6/27/2006*
Parameter	***Units***							
3-Nitroaniline	mg/L	ND (0.05)	ND (0.37)	ND (0.05)	ND (0.37)	ND (0.05)	-	ND (0.37)
4,6-Dinitro-2-methylphenol	mg/L	ND (0.05)	ND (0.37)	ND (0.05)	ND (0.37)	ND (0.05)	-	ND (0.37)
4-Bromophenyl phenyl ether	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
4-Chloro-3-methylphenol	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
4-Chloroaniline	mg/L	ND (0.009)	ND (0.074)	0.005 J	ND (0.074)	0.007 J	-	ND (0.074)
4-Chlorophenyl phenyl ether	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
4-Methylphenol	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
4-Nitroaniline	mg/L	ND (0.05)	ND (0.37)	ND (0.05)	ND (0.37)	ND (0.05)	-	ND (0.37)
4-Nitrophenol	mg/L	ND (0.05)	ND (0.37)	ND (0.05)	ND (0.37)	ND (0.05)	-	ND (0.37)
Acenaphthene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Acenaphthylene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	0.006 J
Anthracene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Benzo(a)anthracene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Benzo(a)pyrene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Benzo(b)fluoranthene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Benzo(g,h,i)perylene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Benzo(k)fluoranthene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Benzoic acid	mg/L	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
bis(2-Chloroethyl)ether	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	0.002 J	-	ND (0.074)
bis(2-Ethylhexyl)phthalate	mg/L	ND (0.009)	ND (0.074)	0.01	ND (0.074)	ND (0.009)	-	ND (0.074)
Butyl benzylphthalate	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Carbazole	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Chrysene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Dibenz(a,h)anthracene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Dibenzofuran	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Diethyl phthalate	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Dimethyl phthalate	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Di-n-butylphthalate	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Di-n-octyl phthalate	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Fluoranthene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Fluorene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Hexachlorobenzene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Hexachlorobutadiene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Hexachlorocyclopentadiene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Hexachloroethane	mg/L	ND (0.04)	ND (0.33)	ND (0.04)	ND (0.33)	ND (0.04)	-	ND (0.33)
Indeno(1,2,3-cd)pyrene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Isophorone	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Naphthalene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Nitrobenzene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
N-Nitrosodi-n-propylamine	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
N-Nitrosodiphenylamine	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Pentachlorophenol	mg/L	ND (0.05)	ND (0.37)	ND (0.05)	ND (0.37)	ND (0.05)	-	ND (0.37)
Phenanthrene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Phenol	mg/L	0.002 J	ND (0.074)	0.02	0.015 J	0.03	-	ND (0.074)
Pyrene	mg/L	ND (0.009)	ND (0.074)	ND (0.009)	ND (0.074)	ND (0.009)	-	ND (0.074)
Metals								
Iron	mg/L	107	-	86.2	-	53.0	-	-
Iron (Dissolved)	mg/L	1.7	77.7 J	0.59	0.482 J	10.2	53.2	3.09 J
Manganese (Dissolved)	mg/L	-	13.6 J	-	7.08 J	-	5.61	6.05 J
Gases								
Methane	mg/L	-	0.013	-	0.45	-	25 D	9.6
Biological								
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-
General Chemistry								
Aerobic Total Microbial Population	cfu/mL	4600	-	20000	-	4500	-	-

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*PZ-17*	*PZ-17*	*PZ-18*	*PZ-18*	*PZ-20*	*PZ-20*	*PZ-20*
Location:		*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*	*OU1*
Sample Date:		*4/7/2006*	*6/27/2006*	*4/6/2006*	*6/27/2006*	*4/6/2006*	*5/18/2006*	*6/27/2006*
Parameter	*Units*							
Alkalinity, Total (As CaCO3)	mg/L	ND (10)	ND (10)	179	346	164	136	131
Benzene Specific Microbial Population	cfu/mL	10000	-	14000	-	7900	-	-
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	94.2	-
Nitrate (as N)	mg/L	ND (0.050)	ND (0.050)	0.65	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)
Orthophosphate	mg/L	-	-	-	-	-	-	-
pH	s.u.	-	-	-	-	-	-	-
pH (water)	s.u.	-	-	-	-	-	-	-
Phosphate, Total	mg/L	6.0	-	57.1	-	11.7	-	-
Sulfate	mg/L	1890	2320	1160	905	1660	1690	1560
Sulfide	mg/L	-	-	-	-	-	-	-
Sulfite	mg/L	-	-	-	-	-	-	-
Total Dissolved Solids (TDS)	mg/L	1870	-	1620	-	2240	-	-
Total Kjeldahl Nitrogen (TKN)	mg/L	22.9	-	25.7	-	33.0	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	27.9	-	48.1	-	88.5	-	-
Total Suspended Solids (TSS)	mg/L	620	-	883	-	88.0	-	-
Field Parameters								
Conductivity Field	umhos/cm	-	2.47	-	2.05	-	2.93	2.33
Dissolved Oxygen	mg/L	-	2.04	-	1.78	-	4.94	1.45
OVA Reading	ppm	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-	-17	-	-132	-	-112	-102
pH Field	s.u.	-	7.48	-	8.02	-	6.69	8.22
Turbidity	ntu	-	0	-	52	-	35	14

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample Date:* / *Parameter*	*Units*	*RW-1 OU1 - D/G - Extract. 4/12/2006*	*RW-1 OU1 - D/G - Extract 5/18/2006*	*RW-1 OU1 - D/G - Extract. 7/25/2006*	*RW-2 OU1 4/6/2006*	*LFW-1 OU1 4/6/2006*	*LFW-3 OU1 4/10/2006*
Volatile Organics							
1,1,1-Trichloroethane	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
1,1,2-Trichloroethane	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
1,1-Dichloroethane	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
1,1-Dichloroethene	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
1,2-Dichloroethane	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
1,2-Dichloropropane	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.025)	-	ND (0.05)	ND (0.01)	ND (0.012)	ND (0.01)
2-Hexanone	mg/L	ND (0.024)	-	ND (0.05)	ND (0.01)	ND (0.012)	ND (0.01)
2-Methylthiophene	mg/L	ND (0.01)	-	-	ND (0.01)	ND (0.01)	ND (0.01)
3-Methylthiophene	mg/L	ND (0.01)	-	-	ND (0.01)	ND (0.01)	0.0022 J
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.023)	-	ND (0.05)	ND (0.01)	ND (0.012)	ND (0.01)
Acetone	mg/L	ND (0.025)	-	ND (0.05) UJ	ND (0.01)	ND (0.012)	0.0028 J
Benzene	mg/L	ND (0.0035)	0.029	0.038	0.079	0.039	0.027
Bromodichloromethane	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Bromoform	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	-	ND (0.05) UJ	ND (0.01)	ND (0.01)	ND (0.01)
Carbon disulfide	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Carbon tetrachloride	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Chlorobenzene	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Chloroethane	mg/L	ND (0.01)	-	ND (0.05) UJ	ND (0.01)	ND (0.01)	ND (0.01)
Chloroform (Trichloromethane)	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Chloromethane (Methyl Chloride)	mg/L	ND (0.01)	-	ND (0.05)	ND (0.01)	ND (0.01)	ND (0.01)
cis-1,2-Dichloroethene	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
cis-1,3-Dichloropropene	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Dibromochloromethane	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Ethyl Ether	mg/L	0.9	1.5	0.93	0.028	0.015	0.0014 J
Ethylbenzene	mg/L	ND (0.0050)	-	ND (0.025)	0.0011 J	ND (0.0050)	ND (0.0050)
m&p-Xylene	mg/L	ND (0.0066)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Methylene chloride	mg/L	ND (0.0050)	-	ND (0.025) UJ	ND (0.0050)	ND (0.0050)	ND (0.0050)
o-Xylene	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Styrene	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Tetrachloroethene	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Toluene	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
trans-1,2-Dichloroethene	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	0.00061 J
trans-1,3-Dichloropropene	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Trichloroethene	mg/L	ND (0.0050)	-	ND (0.025)	ND (0.0050)	ND (0.0050)	ND (0.0050)
Vinyl acetate	mg/L	-	-	-	-	-	-
Vinyl chloride	mg/L	ND (0.01)	-	ND (0.05)	ND (0.01)	ND (0.01)	ND (0.01)
Xylene (total)	mg/L	-	-	-	-	-	-
Semi-Volatile Organics							
1,2,4-Trichlorobenzene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
1,2-Dichlorobenzene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
1,3-Dichlorobenzene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
1,4-Dichlorobenzene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
2,4,5-Trichlorophenol	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
2,4,6-Trichlorophenol	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
2,4-Dichlorophenol	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
2,4-Dimethylphenol	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
2,4-Dinitrophenol	mg/L	ND (0.05)	-	ND (0.048)	ND (0.05)	ND (0.2)	-
2,4-Dinitrotoluene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
2,6-Dinitrotoluene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
2-Chloronaphthalene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
2-Chlorophenol	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
2-Methylnaphthalene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
2-Methylphenol	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
2-Nitroaniline	mg/L	ND (0.05)	-	ND (0.048)	ND (0.05)	ND (0.2)	-
2-Nitrophenol	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
3,3'-Dichlorobenzidine	mg/L	ND (0.02)	-	ND (0.019)	ND (0.02)	ND (0.09)	-

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample Date:* / *Parameter*	*Units*	*RW-1 OU1 - D/G - Extract. 4/12/2006*	*RW-1 OU1 - D/G - Extract 5/18/2006*	*RW-1 OU1 - D/G - Extract. 7/25/2006*	*RW-2 OU1 4/6/2006*	*LFW-1 OU1 4/6/2006*	*LFW-3 OU1 4/10/2006*
3-Nitroaniline	mg/L	ND (0.05)	-	ND (0.048)	ND (0.05)	ND (0.2)	-
4,6-Dinitro-2-methylphenol	mg/L	ND (0.05)	-	ND (0.048)	ND (0.05)	ND (0.2)	-
4-Bromophenyl phenyl ether	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
4-Chloro-3-methylphenol	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
4-Chloroaniline	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
4-Chlorophenyl phenyl ether	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
4-Methylphenol	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
4-Nitroaniline	mg/L	ND (0.05)	-	ND (0.048)	ND (0.05)	ND (0.2)	-
4-Nitrophenol	mg/L	ND (0.05)	-	ND (0.048)	ND (0.05)	ND (0.2)	-
Acenaphthene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Acenaphthylene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Anthracene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Benzo(a)anthracene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Benzo(a)pyrene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Benzo(b)fluoranthene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Benzo(g,h,i)perylene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Benzo(k)fluoranthene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Benzoic acid	mg/L	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
bis(2-Chloroethyl)ether	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
bis(2-Ethylhexyl)phthalate	mg/L	ND (0.009)	-	ND (0.01)	0.04	ND (0.05)	-
Butyl benzylphthalate	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Carbazole	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Chrysene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Dibenz(a,h)anthracene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Dibenzofuran	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Diethyl phthalate	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Dimethyl phthalate	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Di-n-butylphthalate	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Di-n-octyl phthalate	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Fluoranthene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Fluorene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Hexachlorobenzene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Hexachlorobutadiene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Hexachlorocyclopentadiene	mg/L	ND (0.04)	-	ND (0.043)	ND (0.04)	ND (0.2)	-
Hexachloroethane	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Indeno(1,2,3-cd)pyrene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Isophorone	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Naphthalene	mg/L	ND (0.009)	-	ND (0.01) U	ND (0.009)	ND (0.05)	-
Nitrobenzene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
N-Nitrosodi-n-propylamine	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
N-Nitrosodiphenylamine	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Pentachlorophenol	mg/L	ND (0.05)	-	ND (0.048)	ND (0.05)	ND (0.2)	-
Phenanthrene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Phenol	mg/L	ND (0.009)	-	0.002 J	0.01	ND (0.05)	-
Pyrene	mg/L	ND (0.009)	-	ND (0.01)	ND (0.009)	ND (0.05)	-
Metals							
Iron	mg/L	28.5	-	-	47.7	34.6	121
Iron (Dissolved)	mg/L	1.0	29	1.18 J	0.50	0.090	4.9
Manganese (Dissolved)	mg/L	-	2.03	1.8 J	-	-	-
Gases							
Methane	mg/L	-	0.7 E	1.2	-	-	-
Biological							
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-
General Chemistry							
Aerobic Total Microbial Population	cfu/mL	2400	-	-	14000	3200	20000

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*RW-1*	*RW-1*	*RW-1*	*RW-2*	*LFW-1*	*LFW-3*
Location:		*OU1 - D/G - Extract.*	*OU1 - D/G - Extract*	*OU1 - D/G - Extract.*	*OU1*	*OU1*	*OU1*
Sample Date:		*4/12/2006*	*5/18/2006*	*7/25/2006*	*4/6/2006*	*4/6/2006*	*4/10/2006*
Parameter	*Units*						
Alkalinity, Total (As CaCO3)	mg/L	259	-	295	38.3	273	34.9
Benzene Specific Microbial Population	cfu/mL	270	-	-	5000	2000	3100
Dissolved Organic Carbon (DOC)	mg/L	-	25.3	-	-	-	-
Nitrate (as N)	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	5.3	25.2
Orthophosphate	mg/L	-	-	-	-	-	-
pH	s.u.	-	-	-	-	-	-
pH (water)	s.u.	-	-	-	-	-	-
Phosphate, Total	mg/L	3.6	-	-	5.6	2.9	27.1
Sulfate	mg/L	88.8	-	119	1680	847	1050
Sulfide	mg/L	-	-	-	-	-	-
Sulfite	mg/L	-	-	-	-	-	-
Total Dissolved Solids (TDS)	mg/L	562	-	-	2000	1600	1470
Total Kjeldahl Nitrogen (TKN)	mg/L	11.5	-	-	7.4	6.4	11.3
Total Microbial Population	cfu/mL	-	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	14.9	-	-	46.3	31.5	68.9
Total Suspended Solids (TSS)	mg/L	65.0	-	-	77.0	141	811
Field Parameters							
Conductivity Field	umhos/cm	-	2.11	-	-	-	-
Dissolved Oxygen	mg/L	-	4.11	-	-	-	-
OVA Reading	ppm	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-	119	-	-	-	-
pH Field	s.u.	-	6.61	-	-	-	-
Turbidity	ntu	-	20	-	-	-	-

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*LFW-2*	*LFW-4*
Location:		*OU1*	*OU1*
Sample Date:		*4/6/2006*	*4/10/2006*
Parameter	***Units***		
Volatile Organics			
1,1,1-Trichloroethane	mg/L	ND (0.0050)	ND (0.0050)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.0050)	ND (0.0050)
1,1,2-Trichloroethane	mg/L	ND (0.0050)	ND (0.0050)
1,1-Dichloroethane	mg/L	ND (0.0050)	ND (0.0050)
1,1-Dichloroethene	mg/L	ND (0.0050)	ND (0.0050)
1,2-Dichloroethane	mg/L	ND (0.0050)	ND (0.0050)
1,2-Dichloropropane	mg/L	ND (0.0050)	ND (0.0050)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01)	ND (0.01)
2-Hexanone	mg/L	ND (0.01)	ND (0.01)
2-Methylthiophene	mg/L	ND (0.01)	ND (0.01)
3-Methylthiophene	mg/L	0.011	0.015
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01)	ND (0.01)
Acetone	mg/L	0.01	0.0071 J
Benzene	mg/L	0.17	0.063
Bromodichloromethane	mg/L	ND (0.0050)	ND (0.0050)
Bromoform	mg/L	ND (0.0050)	ND (0.0050)
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	ND (0.01)
Carbon disulfide	mg/L	ND (0.0050)	ND (0.0050)
Carbon tetrachloride	mg/L	ND (0.0050)	ND (0.0050)
Chlorobenzene	mg/L	ND (0.0050)	ND (0.0050)
Chloroethane	mg/L	ND (0.01)	ND (0.01)
Chloroform (Trichloromethane)	mg/L	ND (0.0050)	ND (0.0050)
Chloromethane (Methyl Chloride)	mg/L	ND (0.01)	ND (0.01)
cis-1,2-Dichloroethene	mg/L	ND (0.0050)	ND (0.0050)
cis-1,3-Dichloropropene	mg/L	ND (0.0050)	ND (0.0050)
Dibromochloromethane	mg/L	ND (0.0050)	ND (0.0050)
Ethyl Ether	mg/L	0.0034 J	ND (0.01)
Ethylbenzene	mg/L	ND (0.0050)	0.026
m&p-Xylene	mg/L	ND (0.0050)	0.021
Methylene chloride	mg/L	ND (0.0050)	ND (0.0050)
o-Xylene	mg/L	ND (0.0050)	0.029
Styrene	mg/L	ND (0.0050)	ND (0.0050)
Tetrachloroethene	mg/L	ND (0.0050)	ND (0.0050)
Toluene	mg/L	0.0033 J	0.0080
trans-1,2-Dichloroethene	mg/L	ND (0.0050)	ND (0.0050)
trans-1,3-Dichloropropene	mg/L	ND (0.0050)	ND (0.0050)
Trichloroethene	mg/L	ND (0.0050)	ND (0.0050)
Vinyl acetate	mg/L	-	-
Vinyl chloride	mg/L	ND (0.01)	ND (0.01)
Xylene (total)	mg/L	-	-
Semi-Volatile Organics			
1,2,4-Trichlorobenzene	mg/L	ND (0.05)	-
1,2-Dichlorobenzene	mg/L	ND (0.05)	-
1,3-Dichlorobenzene	mg/L	ND (0.05)	-
1,4-Dichlorobenzene	mg/L	ND (0.05)	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	ND (0.05)	-
2,4,5-Trichlorophenol	mg/L	ND (0.05)	-
2,4,6-Trichlorophenol	mg/L	ND (0.05)	-
2,4-Dichlorophenol	mg/L	ND (0.05)	-
2,4-Dimethylphenol	mg/L	ND (0.05)	-
2,4-Dinitrophenol	mg/L	ND (0.2)	-
2,4-Dinitrotoluene	mg/L	ND (0.05)	-
2,6-Dinitrotoluene	mg/L	ND (0.05)	-
2-Chloronaphthalene	mg/L	ND (0.05)	-
2-Chlorophenol	mg/L	ND (0.05)	-
2-Methylnaphthalene	mg/L	ND (0.05)	-
2-Methylphenol	mg/L	ND (0.05)	-
2-Nitroaniline	mg/L	ND (0.2)	-
2-Nitrophenol	mg/L	ND (0.05)	-
3,3'-Dichlorobenzidine	mg/L	ND (0.09)	-

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*LFW-2*	*LFW-4*
Location:		*OU1*	*OU1*
Sample Date:		*4/6/2006*	*4/10/2006*
Parameter	***Units***		
3-Nitroaniline	mg/L	ND (0.2)	-
4,6-Dinitro-2-methylphenol	mg/L	ND (0.2)	-
4-Bromophenyl phenyl ether	mg/L	ND (0.05)	-
4-Chloro-3-methylphenol	mg/L	ND (0.05)	-
4-Chloroaniline	mg/L	ND (0.05)	-
4-Chlorophenyl phenyl ether	mg/L	ND (0.05)	-
4-Methylphenol	mg/L	ND (0.05)	-
4-Nitroaniline	mg/L	ND (0.2)	-
4-Nitrophenol	mg/L	ND (0.2)	-
Acenaphthene	mg/L	ND (0.05)	-
Acenaphthylene	mg/L	ND (0.05)	-
Anthracene	mg/L	ND (0.05)	-
Benzo(a)anthracene	mg/L	ND (0.05)	-
Benzo(a)pyrene	mg/L	ND (0.05)	-
Benzo(b)fluoranthene	mg/L	ND (0.05)	-
Benzo(g,h,i)perylene	mg/L	ND (0.05)	-
Benzo(k)fluoranthene	mg/L	ND (0.05)	-
Benzoic acid	mg/L	-	-
Benzyl Alcohol	mg/L	-	-
bis(2-Chloroethoxy)methane	mg/L	ND (0.05)	-
bis(2-Chloroethyl)ether	mg/L	ND (0.05)	-
bis(2-Ethylhexyl)phthalate	mg/L	ND (0.05)	-
Butyl benzylphthalate	mg/L	ND (0.05)	-
Carbazole	mg/L	ND (0.05)	-
Chrysene	mg/L	ND (0.05)	-
Dibenz(a,h)anthracene	mg/L	ND (0.05)	-
Dibenzofuran	mg/L	ND (0.05)	-
Diethyl phthalate	mg/L	ND (0.05)	-
Dimethyl phthalate	mg/L	ND (0.05)	-
Di-n-butylphthalate	mg/L	ND (0.05)	-
Di-n-octyl phthalate	mg/L	ND (0.05)	-
Fluoranthene	mg/L	ND (0.05)	-
Fluorene	mg/L	ND (0.05)	-
Hexachlorobenzene	mg/L	ND (0.05)	-
Hexachlorobutadiene	mg/L	ND (0.05)	-
Hexachlorocyclopentadiene	mg/L	ND (0.2)	-
Hexachloroethane	mg/L	ND (0.05)	-
Indeno(1,2,3-cd)pyrene	mg/L	ND (0.05)	-
Isophorone	mg/L	ND (0.05)	-
Naphthalene	mg/L	ND (0.05)	-
Nitrobenzene	mg/L	ND (0.05)	-
N-Nitrosodi-n-propylamine	mg/L	ND (0.05)	-
N-Nitrosodiphenylamine	mg/L	ND (0.05)	-
Pentachlorophenol	mg/L	ND (0.2)	-
Phenanthrene	mg/L	ND (0.05)	-
Phenol	mg/L	0.02 J	-
Pyrene	mg/L	ND (0.05)	-
Metals			
Iron	mg/L	122	31.6
Iron (Dissolved)	mg/L	33.2	2.0
Manganese (Dissolved)	mg/L	-	-
Gases			
Methane	mg/L	-	-
Biological			
Benzene Specific Microbial Population	cfu/mL	-	-
Total Microbial Population	cfu/mL	-	-
General Chemistry			
Aerobic Total Microbial Population	cfu/mL	6700	24000

TABLE 3.1
GROUNDWATER MONITORING DATA - 2006
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Sample Location:		*LFW-2*	*LFW-4*
Location:		*OU1*	*OU1*
Sample Date:		*4/6/2006*	*4/10/2006*
Parameter	*Units*		
Alkalinity, Total (As CaCO3)	mg/L	82.4	386
Benzene Specific Microbial Population	cfu/mL	6400	14000
Dissolved Organic Carbon (DOC)	mg/L	-	-
Nitrate (as N)	mg/L	ND (0.050)	ND (0.050)
Orthophosphate	mg/L	-	-
pH	s.u.	-	-
pH (water)	s.u.	-	-
Phosphate, Total	mg/L	13.9	28.7
Sulfate	mg/L	1110	603
Sulfide	mg/L	-	-
Sulfite	mg/L	-	-
Total Dissolved Solids (TDS)	mg/L	2060	1230
Total Kjeldahl Nitrogen (TKN)	mg/L	34.5	7.5
Total Microbial Population	cfu/mL	-	-
Total Organic Carbon (TOC)	mg/L	278	93.8
Total Suspended Solids (TSS)	mg/L	271	247
Field Parameters			
Conductivity Field	umhos/cm	-	-
Dissolved Oxygen	mg/L	-	-
OVA Reading	ppm	-	-
Oxidation reduction potential	millivolts	-	-
pH Field	s.u.	-	-
Turbidity	ntu	-	-

TABLE 3.2

SUMMARY OF TREND TEST ANALYSIS
FOR BENZENE AND ETHYL ETHER IN GROUNDWATER
STERLING SITE 3
EAST GREENBUSH, NEW YORK

BENZENE CONCENTRATIONS IN GROUNDWATER

Well	*Unit*	*Number of Samples*	*Percent Non-Detects*	*Trend Test*			
				Test	*Statistic*	*Probability*	*Conclusion*
MW-1S	mg/L	5	100%	--	--	--	100% ND
MW-2S	mg/L	18	89%	Logistic	--	--	>50% ND
MW-3S	mg/L	7	0%	Mann-Kendall	-1	1	No trend identified
MW-3SR	mg/L	10	20%	Mann-Kendall	-10	0.421	No trend identified
MW-4B	mg/L	18	100%	--	--	--	100% ND
MW-5B	mg/L	5	100%	--	--	--	100% ND
MW-6A	mg/L	6	100%	--	--	--	100% ND
MW-6B	mg/L	18	100%	--	--	--	100% ND
MW-7B	mg/L	5	100%	--	--	--	100% ND
MW-8B	mg/L	5	100%	--	--	--	100% ND
MW-9A	mg/L	5	100%	--	--	--	100% ND
MW-9B	mg/L	18	94%	Logistic	--	--	>50% ND
MW-10B	mg/L	5	100%	--	--	--	100% ND
MW-11B	mg/L	5	100%	--	--	--	100% ND
MW-12B	mg/L	8	100%	--	--	--	100% ND
MW-13A	mg/L	8	100%	--	--	--	100% ND
MW-13B	mg/L	18	100%	--	--	--	100% ND
MW-14B	mg/L	4	100%	--	--	--	100% ND
MW-15B	mg/L	5	100%	--	--	--	100% ND
MW-16B	mg/L	8	100%	--	--	--	100% ND
MW-17B	mg/L	8	100%	--	--	--	100% ND
MW-18B	mg/L	5	100%	--	--	--	100% ND
MW-19B	mg/L	8	100%	--	--	--	100% ND
PZ-2A	mg/L	7	0%	Mann-Kendall	-15	0.035	**Decreasing Trend**
PZ-14	mg/L	7	0%	Mann-Kendall	-11	0.133	No trend identified
PZ-15	mg/L	7	71%	Logistic	--	--	>50% ND
PZ-16	mg/L	7	0%	Mann-Kendall	-17	0.016	**Decreasing Trend**
PZ-17	mg/L	7	0%	Mann-Kendall	-17	0.016	**Decreasing Trend**
PZ-18	mg/L	12	0%	Mann-Kendall	-40	0.007	**Decreasing Trend**
PZ-20	mg/L	7	0%	Mann-Kendall	-15	0.035	**Decreasing Trend**
RW-1	mg/L	7	43%	Mann-Kendall	-6	0.453	No trend identified

TABLE 3.2

SUMMARY OF TREND TEST ANALYSIS
FOR BENZENE AND ETHYL ETHER IN GROUNDWATER
STERLING SITE 3
EAST GREENBUSH, NEW YORK

ETHYL ETHER CONCENTRATIONS IN GROUNDWATER

Well	*Unit*	*Number of Samples*	*Percent Non-Detects*	*Trend Test*			
				Test	*Statistic*	*Probability*	*Conclusion*
MW-1S	mg/L	5	60%	Logistic	--	--	>50% ND
MW-2S	mg/L	18	0%	Mann-Kendall	-44	0.103	No trend identified
MW-3S	mg/L	7	14%	Mann-Kendall	-3	0.764	No trend identified
MW-3SR	mg/L	10	30%	Mann-Kendall	-9	0.474	No trend identified
MW-4B	mg/L	18	100%	--	--	--	100% ND
MW-5B	mg/L	5	100%	--	--	--	100% ND
MW-6A	mg/L	6	100%	--	--	--	100% ND
MW-6B	mg/L	18	28%	Mann-Kendall	-59	0.028	**Decreasing Trend**
MW-7B	mg/L	5	100%	--	--	--	100% ND
MW-8B	mg/L	5	100%	--	--	--	100% ND
MW-9A	mg/L	5	100%	--	--	--	100% ND
MW-9B	mg/L	18	28%	Mann-Kendall	-6	0.850	No trend identified
MW-10B	mg/L	5	80%	Logistic	--	--	>50% ND
MW-11B	mg/L	5	60%	Logistic	--	--	>50% ND
MW-12B	mg/L	8	0%	Mann-Kendall	-18	0.035	**Decreasing Trend**
MW-13A	mg/L	8	50%	Mann-Kendall	4	0.711	No trend identified
MW-13B	mg/L	18	0%	Mann-Kendall	-68	0.011	**Decreasing Trend**
MW-14B	mg/L	4	100%	--	--	--	100% ND
MW-15B	mg/L	5	20%	Mann-Kendall	1	1.000	No trend identified
MW-16B	mg/L	8	0%	Mann-Kendall	-10	0.266	No trend identified
MW-17B	mg/L	8	0%	Mann-Kendall	10	0.266	No trend identified
MW-18B	mg/L	5	20%	Mann-Kendall	2	0.806	No trend identified
MW-19B	mg/L	8	0%	Mann-Kendall	-8	0.386	No trend identified
PZ-2A	mg/L	5	0%	Mann-Kendall	-2	0.806	No trend identified
PZ-14	mg/L	5	20%	Mann-Kendall	-4	0.462	No trend identified
PZ-15	mg/L	5	80%	Logistic	--	--	>50% ND
PZ-16	mg/L	5	20%	Mann-Kendall	-8	0.086	No trend identified
PZ-17	mg/L	5	0%	Mann-Kendall	-8	0.086	No trend identified
PZ-18	mg/L	12	33%	Mann-Kendall	-26	0.086	No trend identified
PZ-20	mg/L	7	14%	Mann-Kendall	-7	0.368	No trend identified
RW-1	mg/L	7	0%	Mann-Kendall	-13	0.072	No trend identified

TABLE 3.3

MONITORED NATURAL ATTENUATION PARAMETER RESULTS
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Well ID		*Upgradient*				*Source*			
Date		*MW-5B 5/18/06*	*MW-5B 6/26/06*	*MW-4B 5/18/06*	*MW-4B 6/26/06*	*PZ-20 5/18/06*	*PZ-20 6/26/06*	*PZ-14 5/18/06*	*PZ-14 6/26/06*
ORP	mV	-124	-111	-93	-63	-112	-102	-123	-145
pH	s.u.	6.62	8.04	6.49	7.49	6.69	8.22	6.74	7.96
DO	mg/L	2.98	1.06	5.65	0.89	4.94	1.45	4.59	1.68
Conductivity	mS	0.717	0.729	0.397	0.306	2.930	2.330	2.420	2.080
Turbidity	NTU	5.4	11	>999	17	35	14	244	9
Temperature	°C	10.3	1.4	10.5	10.2	12.4	12	11.4	11.2
Nitrate	mg/L	ND (0.050)	--	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)
Manganese	mg/L	3.16	--	1.14	0.118	5.61	6.05	4.36	3.88
Iron	mg/L	37.1	--	19.9	0.572	53.2	3.09	67.8	2.28
Sulfate	mg/L	ND (4.0)	--	22.6	14.4	1.69	1560	1350	1380
Methane	mg/L	0.78	--	0.0028	0.022	1	9.6	0.77	2.9
Alkalinity	mg/L	258	--	119	175	136	131	55.6	284
Ethyl ether	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	0.12	0.18	0.12	0.1
Benzene	mg/L	ND (0.001)	ND (0.005)	ND (0.001)	ND (0.0005)	0.7	5.1	1.6	1.7
DOC	mg/L	12.1	--	3.2	--	94.2	--	49.6	--

TABLE 3.3

MONITORED NATURAL ATTENUATION PARAMETER RESULTS STERLING SITE 3 EAST GREENBUSH, NEW YORK

Well ID		*MW-2S*	*MW-2S*	*MW-3SR*	*MW-3SR*	*RW-1*	*RW-1*	*MW-6B*	*MW-6B*	*MW-9B*	*MW-9B*
Date		*5/18/06*	*6/26/06*	*5/18/06*	*6/26/06*	*5/18/06*	*6/26/06*	*5/18/06*	*6/26/06*	*5/18/06*	*6/26/06*
		Downgradient									
ORP	mV	-90	-98	55	286	119	--	-25	-101	-103	-122
pH	s.u.	6.43	7.15	6.60	6.89	6.61	--	6.81	7.33	6.79	7.58
DO	mg/L	4.66	0.24	3.89	8.22	4.11	--	4.39	1.26	5.03	1.15
Conductivity	mS	0.621	0.653	0.241	0.313	2.110	--	0.391	0.423	0.539	0.570
Turbidity	NTU	28	17	>999	2	20	--	112	17	8	6
Temperature	°C	10.3	10.0	10.8	10.8	11.0	--	10.2	9.6	10.1	9.4
Nitrate	mg/L	ND (0.050)	ND (0.050)	0.26	0.3	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)
Manganese	mg/L	3.09	1.88	0.0147	0.125	2.03	1.8	0.038	0.026	1.26	1.12
Iron	mg/L	26.1	2.23	0.0552	ND (0.050)	29	1.18	0.274	0.11	17	7.44
Sulfate	mg/L	3.3	29.0	5.9	2.4	--	119	19.2	14.9	ND (4.0)	ND (2.0)
Methane	mg/L	1	6.2	0.0075	0.27	0.7	1.2	0.07	0.0036	0.95	4.4
Alkalinity	mg/L	170	227	84.4	137	--	295	121	147	130	64.2
Ethyl ether	mg/L	0.26	0.38	ND (0.005)	ND (0.005)	1.5	0.93	0.0013	ND (0.005)	0.012	0.01
Benzene	mg/L	0.00064	0.0008	ND (0.001)	0.00042	0.029	0.038	ND (0.001)	ND (0.0005)	ND (0.001)	ND (0.0005)
DOC	mg/L	24	--	10.7	--	25.3	--	6.8	--	7.3	--

TABLE 3.3

MONITORED NATURAL ATTENUATION PARAMETER RESULTS
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Well ID		*Downgradient*									
Date		*MW-12B 5/18/06*	*MW-12B 6/26/06*	*MW-13B 5/18/06*	*MW-13B 6/26/06*	*MW-16B 5/18/06*	*MW-16B 6/26/06*	*MW-17B 5/18/06*	*MW-17B 6/26/06*	*MW-19B 5/18/06*	*MW-19B 6/26/06*
ORP	mV	-116	-1.48	-109	-130	-134	-151	-117	-123	-68	-111
pH	s.u.	6.83	7.73	6.81	8.07	6.79	7.83	6.85	9.98	6.95	9.94
DO	mg/L	5.22	1.21	7.34	1	3.61	1.7	2.97	1.11	5.53	1.13
Conductivity	mS	1.070	1.460	0.708	0.750	0.951	0.960	0.653	0.722	0.680	0.723
Turbidity	NTU	19.2	7	41.2	14	28	14	15	44	86	71
Temperature	°C	10.6	10.2	10.2	10.2	10.8	10.8	10.3	10.5	10.4	10.4
Nitrate	mg/L	ND (0.050)	ND (0.050)	ND (0.050)	ND (0.050)	0.064	ND (0.050)	ND (0.050)	ND (0.050)	0.053	0.1
Manganese	mg/L	0.499	0.585	1.06	1.05	1.03	0.813	0.759	0.687	0.474	0.387
Iron	mg/L	4.45	4.43	15.8	5.6	36.5	5.81	20.8	11.7	8.95	0.957
Sulfate	mg/L	79.4	71.9	9.7	10.4	ND (4.0)	ND (2.0)	ND (4.0)	ND (2.0)	116	92.9
Methane	mg/L	0.12	0.10	0.68	2.4	0.92	4.9	0.5	1.1	0.01	0.025
Alkalinity	mg/L	160	106	224	179	276	273	192	190	164	192
Ethyl ether	mg/L	0.32	0.14	0.77	0.6	3.1	2.7	2	1.4	0.081	0.12
Benzene	mg/L	ND (0.001)	ND (0.0007)	ND (0.001)	ND (0.0005)	ND (0.001)	ND (0.0005)	ND (0.001)	ND (0.0007)	ND (0.001)	ND (0.0007)
DOC	mg/L	5.2	--	16.7	--	16.8	--	11.8	--	4.1	--

TABLE 3.4

MICROBIAL POPULATION COUNT RESULTS
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Location / *Relative Site Location* / *Year* / *Sample/ Parameter*	*Units*	*PZ-2A Source 2005*	*PZ-2A Source 2006*	*PZ-14 Source 2005*	*PZ-14 Source 2006*	*PZ-15 Source 2005*	*PZ-15 Source 2006*	*PZ-16 Source 2005*	*PZ-16 Source 2006*	*PZ-17 Source 2005*	*PZ-17 Source 2006*
Total Aerobic Microbial Population Counts	*(CFUs/mL)*	$2.6x10^4$	$3.6x10^4$	$8.8x10^3$	$1.1x10^3$	$2.5x10^3$	$1.3x10^4$	$1.7x10^2$	$2.7x10^4$	$2.3x10^3$	$4.6x10^3$
Benzene Specific Microbial Population Counts	*(CFUs/ mL)*	$4.6x10^3$	$2.0x10^4$	$4.5x10^3$	$5.8x10^3$	$9.8x10^2$	$1.3x10^4$	$2.0x10^1$	$4.1x10^3$	$1.5x10^3$	$1.0x10^4$
Benzene	*(mg/mL)*	0.12	0.0051	6.8 D	11 D	ND (0.00050)	0.0013	0.13	0.054	0.047	0.0090

TABLE 3.4

MICROBIAL POPULATION COUNT RESULTS
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Location / *Relative Site Location* / *Year*		*PZ-18 Source 2005*	*PZ-18 Source 2006*	*PZ-20 Source 2005*	*PZ-20 Source 2006*	*LFW-1 Source 2005*	*LFW-1 Source 2006*	*LFW-2 Source 2005*	*LFW-2 Source 2006*	*LFW-3 Source 2005*	*LFW-3 Source 2006*
Sample/ Parameter	***Units***										
Total Aerobic Microbial Population Counts	*(CFUs/mL)*	$6.3x10^3$	$2.0x10^4$	$2.2x10^4$	$4.5x10^3$	$1.7x10^4$	$3.2x10^3$	$1.4x10^4$	$6.7x10^3$	$9.6x10^3$	$2.0x10^4$
Benzene Specific Microbial Population Counts	*(CFUs/ mL)*	$4.8x10^3$	$1.4x10^4$	$4.9x10^3$	$7.9x10^3$	$4.5x10^1$	$2.0x10^3$	$2.4x10^3$	$6.4x10^3$	$7.0x10^2$	$3.1x10^3$
Benzene	*(mg/mL)*	0.94	0.44	13 D	5.4 D	ND (0.0035)	0.039	0.35	0.17	0.017	0.027

TABLE 3.4

MICROBIAL POPULATION COUNT RESULTS
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Location / *Relative Site Location* / *Year* / *Sample/ Parameter*	*Units*	*LFW-4 Source 2005*	*LFW-4 Source 2006*	*RW-2 Source 2005*	*RW-2 Source 2006*	*RW-1 Downgradient 2005*	*RW-1 Downgradient 2006*
Total Aerobic Microbial Population Counts	*(CFUs/mL)*	$2.2x10^4$	$2.4x10^4$	$1.0x10^4$	$1.4x10^4$	$3.2x10^3$	$2.4x10^3$
Benzene Specific Microbial Population Counts	*(CFUs/ mL)*	$5.7x10^3$	$1.4x10^4$	$4.3x10^2$	$5.0x10^3$	No growth	$2.7x10^2$
Benzene	*(mg/mL)*	1.4	0.063	0.71	0.079	0.0064	ND (0.0035)

Note: CFUs = Colony Forming Units.
Values are averages of duplicates

Microbial Counts - Method 9215B Adapted from Standard Methods for the Examination of Water and Wastewater 17th ed.

TABLE 5.1

SUMMARY OF POTENTIAL FEDERAL ARARs
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Contaminant-Specific	*Type*	*Rationale*
40 CFR Subparts 411.11 - 411.18 - Safe Drinking Water Act (SDWA) Maximum Contaminants Levels (MCLs)	ARAR	Sets acceptable concentrations of chemicals in drinking water. Application to derivation of Soil Cleanup Objectives for the protection of groundwater from leaching of contaminants from soil.
Clean Water Act (CWA) Water Quality Criteria	ARAR	Regulates ambient concentrations of contaminants in surface water for human and aquatic exposure scenarios. Also establishes NPDES permit system, under which discharges to surface water are regulated based on use of water, and POTW pretreatment standards.
Clean Air Act	ARAR	Regulates ambient concentrations and release of chemicals to air.
Location-Specific	*Type*	*Rationale*
33 CFR Part 329 - Rivers and Harbors Act	ARAR	Corp of Engineers regulations for wetlands and navigable waters of U.S.
Executive Order 11990 - Protection of Wetlands	ARAR	Requires consideration during remedial actions to minimize destruction, loss, or degradation of wetlands.
Executive Order 11988 - Floodplain Management	ARAR	Requires consideration if remedial actions affect or may potentially affect floodplains.
33 USC 466 Section 404 – Clean Water Act	ARAR	Controls disturbances in wetlands.
40 CFR Subpart 264.18 - RCRA Location Standards	ARAR	Requires that units located in a 100-year floodplain be designed and operated to avoid a washout.
Fish and Wildlife Coordination Act (16 USC 661): -1978 Improvement Act (16 USC 742) -1980 Coordination Act (16 USC 2901)	ARAR	Regulates remedial actions that affect bodies of water or pose potential harm to fish or wildlife. Mitigates impacts to wetlands.
40 CFR Part 280 – Guidelines for Specifications of Disposal Sites for Dredged or Fill Material	TBC	Guidelines for the restoration of wetlands.
40 CFR Part 6, Appendix A – Wetlands Construction and Management Procedures	ARAR	Provides procedures for the management of wetlands that may potentially be impacted by a remedial action.
16 USC 470 – National Historic Preservation Act	ARAR	Determines if Site has significant scientific, prehistorical, historical, archaeological, or cultural resources that may be impacted by remedial action.

TABLE 5.1

SUMMARY OF POTENTIAL FEDERAL ARARs
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Action-Specific	*Type*	*Rationale*
49 CFR Parts 107, 171.1-171.500 DOT Rules for Hazardous Materials Transport	ARAR	Regulates remedial measures involving transportation of hazardous materials such as treatment residuals.
29 CFR 1910 OSHA - Health and Safety Standards	ARAR	Provides safety standards for on-Site workers at hazardous waste sites.
29 CFR 1904 OSHA - Recordkeeping, Reporting, and Related Regulations	ARAR	OSHA regulations for recordkeeping and reporting of compliance with safety conditions during management of hazardous waste.
40 CFR Parts 260-270 Resource Conservation and Recovery Act (RCRA), Subtitle C	ARAR	RCRA standards for management of hazardous waste.
40 CFR Parts 264.90-264.101 RCRA - Subpart F Standards for Owner and Operators of Permitted Hazardous Waste Facilities	ARAR	General requirements for groundwater monitoring.
40 CFR Parts 264.70-264.77 RCRA - Manifesting, Recordkeeping and Reporting	ARAR	Requirements for hazardous waste management.
40 CFR 268, Subpart D RCRA – Land Disposal Restrictions	ARAR	Regulates land disposal of RCRA hazardous wastes.
40 CFR Parts 170 to179, 262 and 263 RCRA Standards Applicable to Generators and Transporters of Hazardous Waste - RCRA Section 3003	ARAR	Regulates off-Site transport and management of hazardous waste.
40 CFR Parts 124 and 270 RCRA Hazardous Waste Permit Program RCRA Section 30-35	ARAR	Specifies permit requirements for RCRA hazardous waste management activities.
40 CFR Subpart Part 122.44 – Establishing Limitations, Standards, and Other Permit Conditions (under the National Pollutant Discharge Elimination Program)	ARAR	Establishes discharge criteria for treatment system effluent to waters of the U.S.
40 CFR Subpart 60.52 Clean Air Act - Prevention of Significant Deterioration (PSD) and New Source Performance Standards (NSPS)	ARAR	Requires that treatment, storage, and disposal comply with primary and secondary ambient air quality standards

Note:
ARAR - Applicable or Relevant and Appropriate Requirements
TBC - To be considered

TABLE 5.2

SUMMARY OF POTENTIAL STATE ARARs
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Contaminant-Specific	*Type*	*Rationale*
6 NYCRR Part 700-703 - New York State Water Quality Regulation	ARAR	Pertains to surface water and groundwater quality, classification, and usage.
TOGS 1.1.1 Ambient Water Quality Standards and Guidance Values, June 1998	TBC	Establishes groundwater quality criteria upon which Soil Cleanup Levels for the protection of groundwater are based.
New York State Air Guide-1 Guidelines for the Control of Toxic Ambient Air contaminants	TBC	Sets ambient concentration for toxic air pollutants used as a possible screening mechanism to determine whether permits should be issued.
6 NYCRR Parts 202, 212 and 219 - New York Air Pollution Control Regulations	ARAR	Regulates emissions from treatment processes such as land farming, vacuum extraction and air stripping.
6 NYCRR Part 375 - New York Ambient Air Quality Standards	ARAR	Establishes treatment process emission standards for treatments such as land farming, vacuum extraction, air stripping, etc.
New York Effluent Standards and Limitations for Class GA Aquifers	ARAR	Regulates direct or indirect injection of treatment effluents into the groundwater aquifer.
TAGM HWR-92-4046 Determination of Soil Cleanup Objectives and Cleanup Levels, 1/24/1994	TBC	Establishes Soil Cleanup Goals for COCs.

Location-Specific	*Type*	*Rationale*
New York Wetlands Laws, New York Environmental Conservation Law, Title 7, Freshwater Wetland Regulations (Article 24)	ARAR	Regulates impacts of remedial actions adjacent to wetlands.
6 NYCRR Part 664 – New York Freshwater Wetlands Maps and Classifications	ARAR	Establishes the classification system for various types of wetlands.
6 NYCRR Part 663 – New York Freshwater Wetlands Permit Requirements	ARAR	Provides procedural requirements for various activities in wetlands and adjacent areas and standards for permit issuance.
6 NYCRR Part 500 – New York State Floodplain Management Act and Regulations	ARAR	Provides requirements for activities on floodplains or areas that may impact floodplains.
6 NYCRR Part 361 - New York Citing of Hazardous Waste Facilities	ARAR	Regulates siting of certain industrial hazardous waste facilities.
6 NYCRR Chapter 375 - New York Rules for Inactive Hazardous Waste Disposal Sites	ARAR	Dictates involvement of federal, state, local governments, etc.
6 NYCRR Part 608 - New York State Water Pollution Control Regulations Use and Protection of Waters	ARAR	Provides for the protection of certain classified streams, and permits for impoundments, structures, dredge and fill.
New York State Flood Hazard Area Construction Standards	ARAR	Evaluation of remedial alternatives with respect to floodplains.

TABLE 5.2

SUMMARY OF POTENTIAL STATE ARARs
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Action-Specific	*Type*	*Rationale*
6 NYCRR Part 212 – General Process Emission Sources	ARAR	Prohibits emissions which are injurious to human, plant, or animal life; or causes a nuisance.
6 NYCRR Part 370 - New York General Hazardous Waste Management Systems Regulations	ARAR	General regulations for hazardous waste management.
6 NYCRR Part 371 - New York Identification and Listing of Hazardous Waste	ARAR	Identifies hazardous waste.
6 NYCRR Part 372 - New York Hazardous Waste Manifest System Requirements	ARAR	Regulates transportation of hazardous waste.
6 NYCRR Subpart 373-1 - New York Hazardous Waste Treatment, Storage and Disposal Facility Permitting Requirements	ARAR	Regulates permitting for hazardous waste storage and disposal.
6 NYCRR Subpart 373–2 - New York Final Status Standards for Owners & Operators of Hazardous Waste Treatment, Storage and Disposal Facilities	ARAR	Regulates hazardous waste treatment, storage
TAGM HWR-92-4030 Selection of Remedial Actions at Inactive Hazardous Waste Sites, 5/15/1990	TBC	General guidance for remedy selection, criteria, and evaluation.
TAGM HWR-89-4031 Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites, 10/27/1989	TBC	Guidance for dust suppression during remedial action.

Note:
ARAR - Applicable or Relevant and Appropriate Requirements
TBC - To be considered

TABLE 7.1

COMPARATIVE ANALYSIS OF ALTERNATIVES
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Evaluation Criteria	*Alternative G1 No Action*	*Alternative G2 Institutional Controls*	*Alternative G3 Monitored Natural Attenuation*	*Alternative G4 In Situ Chemical Oxidation*	*Alternative G5 Ex Situ Carbon Adsorption*
Compliance with SCGs					
Chemical-Specific SCGs	No	Yes (Long-term)	Yes (Long-term)	Yes	Yes
Action-Specific SCGs	N/A	Yes	Yes	Yes	Yes
Location-Specific SCGs	Yes	Yes	Yes	Yes (Special Permits and construction methods may be required)	Yes (Special Permits and construction methods may be required)
Overall Protection of Human Health and the Environment					
Protection Over Time [1]	None	Short-term	Long-Term	Short-Term	Long-Term
Reduction of Risk and Hazard [1]	None	Risk Reduction through controlled use	Risk Reduction through natural attenuation	Risk Reduction through chemical treatment	Risk Reduction through physical treatment
Contamination addressed	Not eliminated, reduced or controlled	Controlled through enforcement of institutional controls	Reduced through natural attentuation	Eliminated through chemical destruction	Reduced through physical treatment
Short-Term Effectiveness					
Community Protection During Remedial Actions	N/A	No risk to Community	Very low risk to Community	Low risk to Community	Low risk to Community
Environmental Impacts	N/A	Low adverse impact (Access for well installation)	Low adverse impact (Access for well installation)	Medium adverse impact (potential for release of oxidant)	Medium adverse impact (Access for forcemain construction and release of untreated groundwater or adsorbent)
Time until remedial response objectives achieved	N/A	N/A	15 to 30 years	<5 years	<5 years
Worker Protection	N/A	N/A	N/A	Protection/Controls required during injection	Protection/Controls required during construction
Long-Term Effectiveness and Permanence [1]					
Permanence of the remedial alternative	Does not reduce risk	Requires enforcemnt	Permanently reduces risk	Permanently eliminates risk	Permanently eliminates risk
Magnitude of Remaining Risk [1]	No Risk Reduction	Reduces risk if Site use restricted	Monitors risk and risk reduced in long term	Permanently eliminates risk	Permanently eliminates risk
Adequacy of Controls	Not adequate	Contaminants remain on Site but exposure potential reduced if institutional controls enforced.	Contaminants remain on Site under monitored conditions	Contaminants in groundwater destroyed	Contaminants in groundwater transferred to another media and/or destroyed
Reliability of Controls	Not reliable	Requires inspection and monitoring	Requires monitoring	Requires monitoring	Requires monitoring

TABLE 7.1

COMPARATIVE ANALYSIS OF ALTERNATIVES
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Evaluation Criteria	*Alternative G1 No Action*	*Alternative G2 Institutional Controls*	*Alternative G3 Monitored Natural Attenuation*	*Alternative G4 In Situ Chemical Oxidation*	*Alternative G5 Ex Situ Carbon Adsorption*
Reduction of Toxicity, Mobility and Volume					
Quantity of Chemicals Treated or Destroyed	None	None	Minimum 80 % reduction in concentration (natural attenuation)	Approx. 100% (chemical treatment)	Approx. 100% (physical treatment)
Degree of expected reduction in toxicity, mobility or volume	None	None	Concentrations reduced further below an acceptable risk level	Approx. 100% reduction	Approx. 100% reduction
Degree to which treatment is irreversible	N/A	N/A	Not reversible	Not reversible	Not easily reversible
Type and quantity of treatment residuals	N/A	N/A	N/A	N/A	Carbon (250 tons) regenerated or disposed off-Site
Implementability					
Technical Feasibility - construction and operation	N/A	N/A	High	Average	Average
Technical Feasibility - reliability of technology	N/A	High	Average	Average	Average
Technical Feasibility - ease of undertaking additional remedial action	High	High	High	High	High
Technical Feasibility - monitoring considerations	N/A	High	Average	Average	Average
Administrative Feasibility	N/A	High	High	Average	Average
Availability of Services and Materials - availability of adequate off-Site treatment, storage capacity, and disposal services	N/A	N/A	N/A	N/A	High
Availability of Services and Materials - availability of necessary equipment, specialists and skilled operators	N/A	N/A	High	High	High
Availability of Services and Materials - availability of services and materials	N/A	N/A	High	High	High

TABLE 7.1

COMPARATIVE ANALYSIS OF ALTERNATIVES
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Evaluation Criteria	*Alternative G1 No Action*	*Alternative G2 Institutional Controls*	*Alternative G3 Monitored Natural Attenuation*	*Alternative G4 In Situ Chemical Oxidation*	*Alternative G5 Ex Situ Carbon Adsorption*
Cost					
Capital Costs	$0	$14,400	$36,000	$283,500	$293,500
Operation and Maintenance Present Worth	$175,000	$412,000	$289,100	$3,419,100	$1,149,700
Total Cost [2]	$175,000	$426,000	$325,000	$3,703,000	$1,443,000
Recommendation					
	Not recommended	Include in Final Remedy	Include in Final Remedy	Not recommended	Not recommended

Notes:

[1] No carcinogenic risk and non-carcinogenic hazard within background exposure levels for OU2
[2] Rounded to nearest $1,000
N/A Not Applicable

TABLE 8.1

PREFERRED REMEDY COST SUMMARY
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Alternative / *Item*	*Unit*	*Estimated Quantity*	*Unit Cost*	*Cost*	*Unit Cost Notes*
3. **Monitored Natural Attenuation**					
Capital Costs					
A. Deed restrictions	l.s.	–	–	$ 10,000	
B. Monitoring Well Installation	l.s.	–	–	$ 15,000	assumes two new wells will be installed
Subtotal				$ 25,000	
Scope and bid contingency (approx. 5% plus 10%)				$ 3,800	
Subtotal				$ 28,800	
Project Management (approx. 10%)				$ 2,900	
Technical Support (approx. 15%)				$ 4,300	
Subtotal				**$ 36,000**	
Operation and Maintenance Costs					
A. Inspections	l.s.	–	–	$ 5,000	
B. Reporting	l.s.	–	–	$ 2,000	
C. Site Maintenance (fencing, monitoring wells)	l.s.	–	–	$ 2,000	
D. Semi-annual Groundwater Monitoring					
i. Reporting	l.s.	–	–	$ 3,000	assumes semi-annual reporting
ii. Annual Groundwater Monitoring	l.s.	–	–	$ 1,500	assumes monitoring of 10 wells for Site-specific parameter list annually
iii. Biennial Groundwater Monitoring				$ 700	assumes monitoring of 10 wells for extended Site-specific parameter list biennially concurrent with every second annual round
E. Review of Remedy	l.s.	–	–	$ 2,000	assumed that a review will be conducted every 5 years using biennial monitoring data
Subtotal				$ 16,200	
Scope and bid contingency (approx. 5% plus 10%)				$ 2,400	
Subtotal				$ 18,600	
Project Management (approx. 10%)				$ 1,900	
Technical Support (approx. 15%)				$ 2,800	
Subtotal				$ 23,300	
Present Worth O&M Costs (30 years at 7%)				$ 289,100	
Total Present Worth O&M Costs				**$ 289,100**	
Total Present Worth Cost (Capital O&M Costs)				**$ 325,000**	

Notes:

- Real discount rate of 7%
- Site-specific parameter list is assumed to include ethyl ether, benzene,
- Extended Site-specific parameter list is assumed to includes nitrate, manganese, dissolved iron, sulfate, and methane.
- Period of analysis is 30 years for long-term monitoring and maintenance
- Scope and bid contingencies are 5% and 10% of costs, respectively
- Bid contingency is 15 percent of costs
- Project management is 10 percent of costs
- Remedial design is 20 percent of costs
- Technical support is 15 percent of costs
- Line item costs are rounded to the nearest $100 and total present worth costs are rounded to the nearest $1,000

APPENDIX A

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - OU2

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*
Location:		*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*
Sample ID:		*MW-AK-08*	*GW-AK-10*	*GW-AK-02*	*MW-JR-08*	*MW-JR-06*	*GW-BKP-024*	*GW-BP-002*	*GW-7830-0701-BKP-001*	*GW-7830-1201-BKP-006*
Sample Date:		*12/10/1997*	*6/24/1998*	*12/15/1998*	*6/14/1999*	*12/8/1999*	*6/6/2000*	*12/19/2000*	*7/2/2001*	*12/6/2001*
Parameter	*Units*									
Volatile Organics										
1,1,1-Trichloroethane	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1,2-Trichloroethane	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethene	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,2-Dichloroethane	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,2-Dichloropropane	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.01) J	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) J	ND (0.01) J
2-Hexanone	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) J
2-Methylthiophene	mg/L	-	ND (0.01)	-	ND (0.01)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
3-Methylthiophene	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Acetone	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) J	ND (0.01)
Benzene	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromodichloromethane	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Carbon disulfide	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005) J	ND (0.005)	ND (0.005)	ND (0.005)
Carbon tetrachloride	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chlorobenzene	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloroethane	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Chloroform (Trichloromethane)	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005) J	ND (0.005)
Chloromethane (Methyl Chloride)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
cis-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Dibromochloromethane	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Ethyl Ether	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) J
Ethylbenzene	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
m&p-Xylene	mg/L	-	-	-	ND (0.005)	-	-	-	-	ND (0.005)
Methylene chloride	mg/L	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
o-Xylene	mg/L	-	-	-	ND (0.005)	-	-	-	-	ND (0.005)
Styrene	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Toluene	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Vinyl acetate	mg/L	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	-	-
Vinyl chloride	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Xylene (total)	mg/L	ND (0.005)	ND (0.01)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-
TIC Volatile Organics										
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	-	-	-	-	-	-	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-
Ether A	mg/L	-	-	-	-	-	-	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics										
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*
Location:		*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*
Sample ID:		*MW-AK-08*	*GW-AK-10*	*GW-AK-02*	*MW-JR-08*	*MW-JR-06*	*GW-BKP-024*	*GW-BP-002*	*GW-7830-0701-BKP-001*	*GW-7830-1201-BKP-006*
Sample Date:		*12/10/1997*	*6/24/1998*	*12/15/1998*	*6/14/1999*	*12/8/1999*	*6/6/2000*	*12/19/2000*	*7/2/2001*	*12/6/2001*
Parameter	*Units*									
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*
Location:		*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*
Sample ID:		*MW-AK-08*	*GW-AK-10*	*GW-AK-02*	*MW-JR-08*	*MW-JR-06*	*GW-BKP-024*	*GW-BP-002*	*GW-7830-0701-BKP-001*	*GW-7830-1201-BKP-006*
Sample Date:		*12/10/1997*	*6/24/1998*	*12/15/1998*	*6/14/1999*	*12/8/1999*	*6/6/2000*	*12/19/2000*	*7/2/2001*	*12/6/2001*
Parameter	*Units*									
Phenol	mg/L	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-
TIC Semi-Volatile Organics										
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-	-
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-	-
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	-	-	-	-	-	-	-	-	-
Lidocaine A	mg/L	-	-	-	-	-	-	-	-	-
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-	-
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-	-
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	-
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-	-
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-	-
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	-	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-
Talbutal A	mg/L	-	-	-	-	-	-	-	-	-
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-
Unknown B	mg/L	-	-	-	-	-	-	-	-	-
Unknown C	mg/L	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*
Location:		*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*
Sample ID:		*MW-AK-08*	*GW-AK-10*	*GW-AK-02*	*MW-JR-08*	*MW-JR-06*	*GW-BKP-024*	*GW-BP-002*	*GW-7830-0701-BKP-001*	*GW-7830-1201-BKP-006*
Sample Date:		*12/10/1997*	*6/24/1998*	*12/15/1998*	*6/14/1999*	*12/8/1999*	*6/6/2000*	*12/19/2000*	*7/2/2001*	*12/6/2001*
Parameter	***Units***									
Unknown D	mg/L	-	-	-	-	-	-	-	-	-
Unknown E	mg/L	-	-	-	-	-	-	-	-	-
Unknown F	mg/L	-	-	-	-	-	-	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-
Metals										
Iron	mg/L	-	ND (16.6)	-	-	-	9.25	-	-	-
Iron (Dissolved)	mg/L	-	ND (9.2)	-	-	-	3.49	-	-	-
Manganese (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-
Gases										
Methane	mg/L	-	-	-	-	-	-	-	-	-
Biological										
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-
General Chemistry										
Alkalinity, Total (As CaCO3)	mg/L	-	155	-	-	-	145	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	0.07	-	-	-	0.04	-	-	-
Orthophosphate	mg/L	-	0.21	-	-	-	0.2 J	-	-	-
pH	s.u.	-	-	-	-	-	-	-	-	-
pH (water)	s.u.	-	6.7	-	-	-	6.7	-	-	-
Phosphate, Total	mg/L	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	-	17.3	-	-	-	15.1	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-	-
Sulfite	mg/L	-	-	-	-	-	-	-	-	-
Total Dissolved Solids (TDS)	mg/L	-	210	-	-	-	178	-	-	-
Total Kjeldahl Nitrogen (TKN)	mg/L	-	ND (1.68)	-	-	-	1.68	-	-	-
Total Organic Carbon (TOC)	mg/L	-	ND (1.9)	-	-	-	1.4	-	-	-
Total Suspended Solids (TSS)	mg/L	-	30	-	-	-	19	-	-	-
Field Parameters										
Conductivity Field	umhos/cm	-	-	-	-	-	-	-	241	-
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-	-
OVA Reading	ppm	-	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-	-	-	-	-	-	-	-	-
pH Field	s.u.	-	-	-	-	-	-	-	6.38	-
Turbidity	ntu	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*
Location:		*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*
Sample ID:		*020621AR-01*	*021217AE-06*	*030627014-001*	*03120209-003*	*040707061-001*	*041207030-002*	*A5680607*	*A5E26910*	*MW4S*	*MW4A*
Sample Date:		*6/21/2002*	*12/17/2002*	*6/26/2003*	*12/1/2003*	*7/7/2004*	*12/7/2004*	*6/29/2005*	*12/13/2005*	*5/18/2006*	*5/31/2006*
Parameter	*Units*										
Volatile Organics											
1,1,1-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
1,1,2,2-Tetrachloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
1,1,2-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
1,1-Dichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
1,1-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005) UJ	ND (0.005)	ND (0.005)	-	-
1,2-Dichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
1,2-Dichloropropane	mg/L	ND (0.005) UJ	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01) UJ	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	-	-
2-Hexanone	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	-
2-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01) UJ	-	-
3-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01) UJ	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	-
Acetone	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01) UJ	ND (0.01)	ND (0.01) UJ	-	-
Benzene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0005)	ND (0.0010)	-
Bromodichloromethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
Bromoform	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005) UJ	-	-
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01) UJ	-	-
Carbon disulfide	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005) UJ	R	ND (0.005)	-	-
Carbon tetrachloride	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
Chlorobenzene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
Chloroethane	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	-	-
Chloroform (Trichloromethane)	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
Chloromethane (Methyl Chloride)	mg/L	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01) UJ	-	-
cis-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005) UJ	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
cis-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
Dibromochloromethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005) UJ	-	-
Ethyl Ether	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.0050)	-
Ethylbenzene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
m&p-Xylene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
Methylene chloride	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
o-Xylene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
Styrene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
Tetrachloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
Toluene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
trans-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
trans-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
Trichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-
Vinyl acetate	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.010)	ND (0.01) UJ	ND (0.01)	ND (0.01)	-	-
Xylene (total)	mg/L	-	-	-	-	-	-	-	-	-	-
TIC Volatile Organics											
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	-	-	-	0.09 BJN	-	-	-	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	-	0.006 BJ	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	0.001 JN	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	0.006 J	-	-	-	-
Semi-Volatile Organics											
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*	*MW-4B*
Location:		*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*
Sample ID:		*020621AR-01*	*021217AE-06*	*030627014-001*	*03120209-003*	*040707061-001*	*041207030-002*	*A5680607*	*A5E26910*	*MW4S*	*MW4A*
Sample Date:		*6/21/2002*	*12/17/2002*	*6/26/2003*	*12/1/2003*	*7/7/2004*	*12/7/2004*	*6/29/2005*	*12/13/2005*	*5/18/2006*	*5/31/2006*
Parameter	*Units*										
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample ID:* / *Sample Date:* / *Parameter*	*Units*	*MW-4B Upgradient 020621AR-01 6/21/2002*	*MW-4B Upgradient 021217AE-06 12/17/2002*	*MW-4B Upgradient 030627014-001 6/26/2003*	*MW-4B Upgradient 03120209-003 12/1/2003*	*MW-4B Upgradient 040707061-001 7/7/2004*	*MW-4B Upgradient 041207030-002 12/7/2004*	*MW-4B Upgradient A5680607 6/29/2005*	*MW-4B Upgradient A5E26910 12/13/2005*	*MW-4B Upgradient MW4S 5/18/2006*	*MW-4B Upgradient MW4A 5/31/2006*
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
TIC Semi-Volatile Organics											
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-	-	-
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	-	-	-	-	-	-	-	-	-	-
Lidocaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Talbutal A	mg/L	-	-	-	-	-	-	-	-	-	-
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown C	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample ID:* / *Sample Date:* / *Parameter*	*Units*	*MW-4B Upgradient 020621AR-01 6/21/2002*	*MW-4B Upgradient 021217AE-06 12/17/2002*	*MW-4B Upgradient 030627014-001 6/26/2003*	*MW-4B Upgradient 03120209-003 12/1/2003*	*MW-4B Upgradient 040707061-001 7/7/2004*	*MW-4B Upgradient 041207030-002 12/7/2004*	*MW-4B Upgradient A5680607 6/29/2005*	*MW-4B Upgradient A5E26910 12/13/2005*	*MW-4B Upgradient MW4S 5/18/2006*	*MW-4B Upgradient MW4A 5/31/2006*
Unknown D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Iron	mg/L	15.5	-	-	-	10.3	-	-	-	-	-
Iron (Dissolved)	mg/L	2.97	-	-	-	ND (0.0084)	-	-	-	19.9	-
Manganese (Dissolved)	mg/L	-	-	-	-	-	-	-	-	1.14	-
Gases											
Methane	mg/L	-	-	-	-	-	-	-	-	0.0028	-
Biological											
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
General Chemistry											
Alkalinity, Total (As CaCO3)	mg/L	130	-	-	-	115	-	-	-	119	-
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-	3.2	-
Nitrate (as N)	mg/L	0.13	-	-	-	0.13	-	-	-	-	ND (0.050)
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-
pH	s.u.	-	-	-	-	6.8	-	-	-	-	-
pH (water)	s.u.	-	-	-	-	-	-	-	-	-	-
Phosphate, Total	mg/L	0.68 J	-	-	-	0.23	-	-	-	-	-
Sulfate	mg/L	10.8	-	-	-	22.4	-	-	-	22.6	-
Sulfide	mg/L	ND (0.1) UJ	-	-	-	ND (0.1)	-	-	-	-	-
Sulfite	mg/L	ND (1) UJ	-	-	-	ND (1)	-	-	-	-	-
Total Dissolved Solids (TDS)	mg/L	185	-	-	-	172	-	-	-	-	-
Total Kjeldahl Nitrogen (TKN)	mg/L	ND (1)	-	-	-	1.4	-	-	-	-	-
Total Organic Carbon (TOC)	mg/L	2.6 J	-	-	-	1.3	-	-	-	-	-
Total Suspended Solids (TSS)	mg/L	38	-	-	-	210	-	-	-	-	-
Field Parameters											
Conductivity Field	umhos/cm	-	343	230	-	388	330	316	400	0.397	-
Dissolved Oxygen	mg/L	-	-	-	-	3.5	-	-	-	5.65	-
OVA Reading	ppm	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-	-	-	-	-4	-	-	-	-93	-
pH Field	s.u.	-	7.9	7.4	-	6.55	7.1	7.24	6.9	6.49	-
Turbidity	ntu	-	-	-	-	67.8	-	-	-	999 >	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-4B*	*MW-5B*	*MW-5B*	*MW-5B*	*MW-5B*	*MW-5B*	*MW-5B*	*MW-7B*	*MW-7B*	*MW-7B*
Location:		*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*OU2*	*OU2*	*OU2*
Sample ID:		*MW4S*	*GW-AK-11*	*GW-BKP-025*	*020621AR-02*	*040707061-002*	*MW5B*	*MW5B*	*GW-AK-14*	*GW-DJT-015*	*020620BH-03*
Sample Date:		*6/26/2006*	*6/24/1998*	*6/6/2000*	*6/21/2002*	*7/7/2004*	*5/18/2006*	*6/26/2006*	*6/25/1998*	*6/2/2000*	*6/20/2002*
Parameter	*Units*										
Volatile Organics											
1,1,1-Trichloroethane	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005) UJ
1,1,2,2-Tetrachloroethane	mg/L	ND (0.0050) UJ	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050) UJ	ND (0.01)	ND (0.005)	ND (0.005)
1,1,2-Trichloroethane	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
1,1-Dichloroethane	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
1,1-Dichloroethene	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
1,2-Dichloroethane	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
1,2-Dichloropropane	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01) UJ	-	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)
2-Hexanone	mg/L	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)
2-Methylthiophene	mg/L	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	-	ND (0.01)	ND (0.01)	ND (0.01)
3-Methylthiophene	mg/L	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	-	ND (0.01)	ND (0.01)	ND (0.01)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)
Acetone	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	-	0.0028 J	ND (0.01)	ND (0.01)	ND (0.01)
Benzene	mg/L	ND (0.0010)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0010)	ND (0.0010)	ND (0.01)	ND (0.005)	ND (0.005)
Bromodichloromethane	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
Bromoform	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Carbon disulfide	mg/L	ND (0.0050)	ND (0.01)	ND (0.005) J	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.01) J	ND (0.005)
Carbon tetrachloride	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
Chlorobenzene	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
Chloroethane	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Chloroform (Trichloromethane)	mg/L	ND (0.0050)	ND (0.01)	0.002 J	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	0.001 J	ND (0.005)
Chloromethane (Methyl Chloride)	mg/L	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)
cis-1,2-Dichloroethene	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005) UJ
cis-1,3-Dichloropropene	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
Dibromochloromethane	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
Ethyl Ether	mg/L	ND (0.0050)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.0050)	ND (0.0050)	ND (0.01)	ND (0.01)	ND (0.01)
Ethylbenzene	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
m&p-Xylene	mg/L	ND (0.0050)	-	-	ND (0.005)	ND (0.005)	-	ND (0.0050)	-	-	ND (0.005)
Methylene chloride	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
o-Xylene	mg/L	ND (0.0050)	-	-	ND (0.005)	ND (0.005)	-	ND (0.0050)	-	-	ND (0.005)
Styrene	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
Tetrachloroethene	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
Toluene	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
trans-1,3-Dichloropropene	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
Trichloroethene	mg/L	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)
Vinyl acetate	mg/L	-	-	ND (0.01)	-	-	-	-	-	ND (0.01)	-
Vinyl chloride	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.010)	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Xylene (total)	mg/L	-	ND (0.01)	ND (0.005)	-	-	-	-	ND (0.01)	ND (0.005)	-
TIC Volatile Organics											
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	-	-	-	0.1 BJN	-	-	-	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics											
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-4B*	*MW-5B*	*MW-5B*	*MW-5B*	*MW-5B*	*MW-5B*	*MW-5B*	*MW-7B*	*MW-7B*	*MW-7B*
Location:		*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*OU2*	*OU2*	*OU2*
Sample ID:		*MW4S*	*GW-AK-11*	*GW-BKP-025*	*020621AR-02*	*040707061-002*	*MW5B*	*MW5B*	*GW-AK-14*	*GW-DJT-015*	*020620BH-03*
Sample Date:		*6/26/2006*	*6/24/1998*	*6/6/2000*	*6/21/2002*	*7/7/2004*	*5/18/2006*	*6/26/2006*	*6/25/1998*	*6/2/2000*	*6/20/2002*
Parameter	*Units*										
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-4B*	*MW-5B*	*MW-5B*	*MW-5B*	*MW-5B*	*MW-5B*	*MW-5B*	*MW-7B*	*MW-7B*	*MW-7B*
Location:		*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*Upgradient*	*OU2*	*OU2*	*OU2*
Sample ID:		*MW4S*	*GW-AK-11*	*GW-BKP-025*	*020621AR-02*	*040707061-002*	*MW5B*	*MW5B*	*GW-AK-14*	*GW-DJT-015*	*020620BH-03*
Sample Date:		*6/26/2006*	*6/24/1998*	*6/6/2000*	*6/21/2002*	*7/7/2004*	*5/18/2006*	*6/26/2006*	*6/25/1998*	*6/2/2000*	*6/20/2002*
Parameter	*Units*										
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
TIC Semi-Volatile Organics											
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-	-	-
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	-	-	-	-	-	-	-	-	-	-
Lidocaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Talbutal A	mg/L	-	-	-	-	-	-	-	-	-	-
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown C	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-4B Upgradient*	*MW-5B Upgradient*	*MW-5B Upgradient*	*MW-5B Upgradient*	*MW-5B Upgradient*	*MW-5B Upgradient*	*MW-5B Upgradient*	*MW-7B OU2*	*MW-7B OU2*	*MW-7B OU2*
Location:		*MW4S*	*GW-AK-11*	*GW-BKP-025*	*020621AR-02*	*040707061-002*	*MW5B*	*MW5B*	*GW-AK-14*	*GW-DJT-015*	*020620BH-03*
Sample ID:											
Sample Date:		*6/26/2006*	*6/24/1998*	*6/6/2000*	*6/21/2002*	*7/7/2004*	*5/18/2006*	*6/26/2006*	*6/25/1998*	*6/2/2000*	*6/20/2002*
Parameter	***Units***										
Unknown D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Iron	mg/L	-	47.9	36.3	4.76	3.45	-	-	36.5	29.8	21.4
Iron (Dissolved)	mg/L	0.572 J	43	23.6	1.75	0.375	37.1	-	29.5	17.6	1.21
Manganese (Dissolved)	mg/L	0.118 J	-	-	-	-	3.16	-	-	-	-
Gases											
Methane	mg/L	0.022	-	-	-	-	3.3 D	-	-	-	-
Biological											
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
General Chemistry											
Alkalinity, Total (As CaCO3)	mg/L	175	320	340	132	130	258	-	180	185	210
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	12.1	-	-	-	-
Nitrate (as N)	mg/L	ND (0.050)	0.05	0.05	0.77	2.66	ND (0.050)	-	0.02	ND (0.02)	0.05
Orthophosphate	mg/L	-	0.92	1 J	-	-	-	-	0.3	0.25 J	-
pH	s.u.	-	-	-	-	6.7	-	-	-	-	-
pH (water)	s.u.	-	6.6	6.8	-	-	-	-	6.9	6.9	-
Phosphate, Total	mg/L	-	-	-	0.32 J	0.21	-	-	-	-	0.19 J
Sulfate	mg/L	14.4	1.5	ND (2)	19.4	28.5	ND (4.0)	-	121	207	246
Sulfide	mg/L	-	-	-	ND (0.1) UJ	ND (0.1)	-	-	-	-	ND (0.1) UJ
Sulfite	mg/L	-	-	-	ND (1) UJ	ND (1)	-	-	-	-	ND (1)
Total Dissolved Solids (TDS)	mg/L	-	375	328	468	208	-	-	445	528	785
Total Kjeldahl Nitrogen (TKN)	mg/L	-	5.88	5.88	ND (1)	2	-	-	ND (3.08)	1.68	ND (1)
Total Organic Carbon (TOC)	mg/L	-	ND (11)	13	2.6 J	2.1	-	-	ND (2.5)	4.5	2.6 J
Total Suspended Solids (TSS)	mg/L	-	51	67	24.5	59	-	-	38	49	64
Field Parameters											
Conductivity Field	umhos/cm	0.306	-	-	-	816	0.717	0.729	-	-	-
Dissolved Oxygen	mg/L	0.89	-	-	-	2.86	2.98	1.06	-	-	-
OVA Reading	ppm	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-63	-	-	-	-79	-124	-111	-	-	-
pH Field	s.u.	7.49	-	-	-	6.52	6.62	8.04	-	-	-
Turbidity	ntu	17	-	-	-	36.5	5.4	11	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-7B*	*MW-7B*	*MW-7B*	*MW-8B*	*MW-8B*	*MW-8B*	*MW-8B*	*MW-8B*	*MW-9A*	*MW-9A*	*MW-9A*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*040702001-005*	*040702001-006*	*MW7*	*GW-AK-17*	*GW-DJT-014*	*020620BH-04*	*040707001-006*	*MW8*	*GW-AK-20*	*GW-BKP-021*	
Sample Date:		*7/1/2004*	*7/1/2004*	*6/26/2006*	*6/25/1998*	*6/2/2000*	*6/20/2002*	*7/6/2004*	*6/26/2006*	*6/25/1998*	*6/5/2000*	
Parameter	*Units*		*Duplicate*									
Volatile Organics												
1,1,1-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005) UJ	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
1,1,2,2-Tetrachloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050) UJ	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050) UJ	ND (0.01)	ND (0.005)	
1,1,2-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
1,1-Dichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
1,1-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
1,2-Dichloropropane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ	ND (0.01)	
2-Hexanone	mg/L	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	
2-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	
3-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01) UJ	ND (0.01)	
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	0.0046 J	ND (0.01)	ND (0.01)	
Acetone	mg/L	ND (0.01) UJ	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01) J	ND (0.01)	ND (0.01) UJ	ND (0.0010)	ND (0.01)	ND (0.01)	
Benzene	mg/L	ND (0.005)	ND (0.005)	ND (0.0010)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Bromodichloromethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Bromoform	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.0050)	ND (0.01)	ND (0.01)	
Carbon disulfide	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005) J	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005) J	
Carbon tetrachloride	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Chlorobenzene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Chloroethane	mg/L	ND (0.01)	ND (0.01)	ND (0.0050)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.01)	ND (0.0050)	ND (0.01)	ND (0.01)	
Chloroform (Trichloromethane)	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Chloromethane (Methyl Chloride)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.0050)	ND (0.01)	ND (0.01)	
cis-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.01) UJ	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
cis-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Dibromochloromethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Ethyl Ether	mg/L	ND (0.01) UJ	ND (0.01) UJ	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Ethylbenzene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
m&p-Xylene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Methylene chloride	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
o-Xylene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Styrene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Tetrachloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Toluene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
trans-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
trans-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Trichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Vinyl acetate	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.01)	ND (0.005)	
Vinyl chloride	mg/L	-	-	-	-	ND (0.01)	-	-	-	-	ND (0.01)	
Xylene (total)	mg/L	ND (0.010)	ND (0.010)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.010)	ND (0.01)	ND (0.01)	ND (0.01)	
	mg/L	-	-	-	ND (0.01)	ND (0.005)	-	-	-	ND (0.01)	ND (0.005)	
TIC Volatile Organics												
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-	
Carbon dioxide A	mg/L	0.1 BJN	0.1 BJN	-	-	-	-	-	-	-	-	
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	0.1 BJN	-	-	-	
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-	
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-	-	-	
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-	
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-	
Ether A	mg/L	-	-	-	-	-	-	-	-	-	-	
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-	-	
Hexane A	mg/L	-	-	-	-	-	-	-	-	-	-	
Silanol, trimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-	-	-	
Trichlorofluoromethane A	mg/L	0.05 JN	0.04 JN	-	-	-	-	-	-	-	-	
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown silane A	mg/L	-	-	-	-	-	-	-	-	-	-	
Semi-Volatile Organics												
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-7B*	*MW-7B*	*MW-7B*	*MW-8B*	*MW-8B*	*MW-8B*	*MW-8B*	*MW-8B*	*MW-9A*	*MW-9A*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*040702001-005*	*040702001-006*	*MW7*	*GW-AK-17*	*GW-DJT-014*	*020620BH-04*	*040707001-006*	*MW8*	*GW-AK-20*	*GW-BKP-021*
Sample Date:		*7/1/2004*	*7/1/2004*	*6/26/2006*	*6/25/1998*	*6/2/2000*	*6/20/2002*	*7/6/2004*	*6/26/2006*	*6/25/1998*	*6/5/2000*
Parameter	*Units*		*Duplicate*								
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-7B*	*MW-7B*	*MW-7B*	*MW-8B*	*MW-8B*	*MW-8B*	*MW-8B*	*MW-8B*	*MW-9A*	*MW-9A*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*040702001-005*	*040702001-006*	*MW7*	*GW-AK-17*	*GW-DJT-014*	*020620BH-04*	*040707001-006*	*MW8*	*GW-AK-20*	*GW-BKP-021*
Sample Date:		*7/1/2004*	*7/1/2004*	*6/26/2006*	*6/25/1998*	*6/2/2000*	*6/20/2002*	*7/6/2004*	*6/26/2006*	*6/25/1998*	*6/5/2000*
Parameter	*Units*		*Duplicate*								
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
TIC Semi-Volatile Organics											
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-	-	-
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	-	-	-	-	-	-	-	-	-	-
Lidocaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Talbutal A	mg/L	-	-	-	-	-	-	-	-	-	-
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown C	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-7B*	*MW-7B*	*MW-7B*	*MW-8B*	*MW-8B*	*MW-8B*	*MW-8B*	*MW-8B*	*MW-9A*	*MW-9A*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*040702001-005*	*040702001-006*	*MW7*	*GW-AK-17*	*GW-DJT-014*	*020620BH-04*	*040707001-006*	*MW8*	*GW-AK-20*	*GW-BKP-021*
Sample Date:		*7/1/2004*	*7/1/2004*	*6/26/2006*	*6/25/1998*	*6/2/2000*	*6/20/2002*	*7/6/2004*	*6/26/2006*	*6/25/1998*	*6/5/2000*
			Duplicate								
Parameter	*Units*										
Unknown D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Iron	mg/L	233	58.8	-	40.7	31	7.54	14.6	-	-	-
Iron (Dissolved)	mg/L	ND (0.0084)	ND (0.0084)	-	38.2	19.3	0.662	0.729	-	-	-
Manganese (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Gases											
Methane	mg/L	-	-	-	-	-	-	-	-	-	-
Biological											
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
General Chemistry											
Alkalinity, Total (As CaCO3)	mg/L	210	220	-	140	105	140	130	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	ND (0.02)	ND (0.02)	-	ND (0.02)	0.07	0.55	0.07	-	-	-
Orthophosphate	mg/L	-	-	-	0.28	0.28 J	-	-	-	-	-
pH	s.u.	7.0 J	7.0 J	-	-	-	-	6.7 J	-	-	-
pH (water)	s.u.	-	-	-	6.6	6.8	-	-	-	-	-
Phosphate, Total	mg/L	2.72	3.23	-	-	-	0.17 J	0.17	-	-	-
Sulfate	mg/L	227	197	-	247	293	205	229	-	-	-
Sulfide	mg/L	2.2	1.8	-	-	-	ND (0.1) UJ	ND (0.1)	-	-	-
Sulfite	mg/L	ND (1) UJ	ND (1) UJ	-	-	-	ND (1)	ND (1) UJ	-	-	-
Total Dissolved Solids (TDS)	mg/L	648	620	-	652	628	600	540	-	-	-
Total Kjeldahl Nitrogen (TKN)	mg/L	20	22	-	ND (2.24)	3.08	1.12	2.2	-	-	-
Total Organic Carbon (TOC)	mg/L	11	11	-	ND (4)	6.7	2.2 J	5.7	-	-	-
Total Suspended Solids (TSS)	mg/L	1256	440	-	31	41	18.5	34.5	-	-	-
Field Parameters											
Conductivity Field	umhos/cm	1070	-	1.13	-	-	-	1040	0.727	-	-
Dissolved Oxygen	mg/L	3.01	-	0.42	-	-	-	2.89	1.01	-	-
OVA Reading	ppm	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-80	-	-314	-	-	-	-49	12	-	-
pH Field	s.u.	6.53	-	7.28	-	-	-	6.44	7.5	-	-
Turbidity	ntu	60.7	-	999 >	-	-	-	45.3	4	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-9A*	*MW-9A*	*MW-9A*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*020621AR-03*	*040701003-002*	*MW9A*	*MW-AK-02*	*MW-AK-03*	*GW-AK-31*	*GW-AK-32*	*GW-AK-03*	*MW-JR-04*	*MW-JR-05*	*MW-JR-04*
Sample Date:		*6/21/2002*	*6/30/2004*	*6/26/2006*	*12/9/1997*	*12/9/1997*	*6/29/1998*	*6/29/1998*	*12/15/1998*	*6/14/1999*	*6/14/1999*	*12/8/1999*
Parameter	*Units*					*Duplicate*		*Duplicate*			*Duplicate*	
Volatile Organics												
1,1,1-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050) UJ	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1,2-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,2-Dichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,2-Dichloropropane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
2-Hexanone	mg/L	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) J	ND (0.01)	ND (0.01)	ND (0.01)
2-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	-	-	-	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.005)
3-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	-	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Acetone	mg/L	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.026)	ND (0.01)	ND (0.01)	ND (0.01)	0.02 J	ND (0.01)
Benzene	mg/L	ND (0.005)	ND (0.005)	ND (0.0010)	ND (0.005)	ND (0.005)	0.001 J	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromodichloromethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Carbon disulfide	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005) J	ND (0.005)	ND (0.005)	ND (0.005)
Carbon tetrachloride	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chlorobenzene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloroethane	mg/L	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Chloroform (Trichloromethane)	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloromethane (Methyl Chloride)	mg/L	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) J	ND (0.01)	ND (0.01)	ND (0.01)
cis-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Dibromochloromethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Ethyl Ether	mg/L	ND (0.01)	ND (0.01)	ND (0.0050)	ND (0.005)	ND (0.005)	0.04	0.034	0.013	ND (0.01)	ND (0.01)	0.067
Ethylbenzene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
m&p-Xylene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	-	-	-	-	-	ND (0.005)	ND (0.005)	-
Methylene chloride	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.014)	ND (0.012)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
o-Xylene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	-	-	-	-	-	ND (0.005)	ND (0.005)	-
Styrene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Toluene	mg/L	ND (0.005)	ND (0.005)	0.0043 J	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Vinyl acetate	mg/L	-	-	-	ND (0.01)	ND (0.01)	-	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Vinyl chloride	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Xylene (total)	mg/L	-	-	-	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	-	-	ND (0.005)
TIC Volatile Organics												
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	0.2 BJN	-	-	-	-	-	-	-	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ether A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics												
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-9A*	*MW-9A*	*MW-9A*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*020621AR-03*	*040701003-002*	*MW9A*	*MW-AK-02*	*MW-AK-03*	*GW-AK-31*	*GW-AK-32*	*GW-AK-03*	*MW-JR-04*	*MW-JR-05*	*MW-JR-04*
Sample Date:		*6/21/2002*	*6/30/2004*	*6/26/2006*	*12/9/1997*	*12/9/1997*	*6/29/1998*	*6/29/1998*	*12/15/1998*	*6/14/1999*	*6/14/1999*	*12/8/1999*
						Duplicate		*Duplicate*			*Duplicate*	
Parameter	*Units*											
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	ND (0.025)	ND (0.025)	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	ND (0.025)	ND (0.025)	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	ND (0.025)	ND (0.025)	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	ND (0.025)	ND (0.025)	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	ND (0.025)	ND (0.025)	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	ND (0.025)	ND (0.025)	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	-	-	ND (0.025)	ND (0.025)	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	0.0006 J	ND (0.01)	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	0.001 J	0.002 J	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	ND (0.025)	ND (0.025)	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-9A*	*MW-9A*	*MW-9A*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*020621AR-03*	*040701003-002*	*MW9A*	*MW-AK-02*	*MW-AK-03*	*GW-AK-31*	*GW-AK-32*	*GW-AK-03*	*MW-JR-04*	*MW-JR-05*	*MW-JR-05*	*MW-JR-04*
Sample Date:		*6/21/2002*	*6/30/2004*	*6/26/2006*	*12/9/1997*	*12/9/1997*	*6/29/1998*	*6/29/1998*	*12/15/1998*	*6/14/1999*	*6/14/1999*	*6/14/1999*	*12/8/1999*
Parameter	*Units*					*Duplicate*		*Duplicate*				*Duplicate*	
Phenol	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-	-
TIC Semi-Volatile Organics													
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Lidocaine A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	0.002 JN	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	0.006 JN	0.006 JN	-	-	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Talbutal A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-	-	-
Unknown B	mg/L	-	-	-	-	-	0.004 J	0.002 J	-	-	-	-	-
Unknown C	mg/L	-	-	-	-	-	0.004 J	0.002 J	-	-	-	-	-
							0.004 J	0.004 J					

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-9A*	*MW-9A*	*MW-9A*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*020621AR-03*	*040701003-002*	*MW9A*	*MW-AK-02*	*MW-AK-03*	*GW-AK-31*	*GW-AK-32*	*GW-AK-03*	*MW-JR-04*	*MW-JR-05*	*MW-JR-04*
Sample Date:		*6/21/2002*	*6/30/2004*	*6/26/2006*	*12/9/1997*	*12/9/1997*	*6/29/1998*	*6/29/1998*	*12/15/1998*	*6/14/1999*	*6/14/1999*	*12/8/1999*
Parameter	*Units*					*Duplicate*		*Duplicate*			*Duplicate*	
Unknown D	mg/L	-	-	-	-	-	0.003 J	0.002 J	-	-	-	-
Unknown E	mg/L	-	-	-	-	-	0.01 J	0.003 J	-	-	-	-
Unknown F	mg/L	-	-	-	-	-	-	0.02 J	-	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	0.01 J	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	0.003 J	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	0.003 J	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	0.006 J	0.003 J	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	0.008 J	0.005 J	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Metals												
Iron	mg/L	37.4	24.6	-	-	-	ND (22.6)	ND (20.5)	-	-	-	-
Iron (Dissolved)	mg/L	0.243	ND (0.0084)	-	-	-	ND (18.2)	ND (18.1)	-	-	-	-
Manganese (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Gases												
Methane	mg/L	-	-	-	-	-	-	-	-	-	-	-
Biological												
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	7200	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	28000	-	-	-	-	-
General Chemistry												
Alkalinity, Total (As CaCO3)	mg/L	460	430	-	-	-	190	195	-	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	0.07	0.37	-	-	-	ND (0.02)	ND (0.03)	-	-	-	-
Orthophosphate	mg/L	-	-	-	-	-	0.38	0.34	-	-	-	-
pH	s.u.	-	6.7 J	-	-	-	-	-	-	-	-	-
pH (water)	s.u.	-	-	-	-	-	6.4	6.5	-	-	-	-
Phosphate, Total	mg/L	1.4 J	0.75	-	-	-	-	-	-	-	-	-
Sulfate	mg/L	31.8	21.2	-	-	-	4.5	4.5	-	-	-	-
Sulfide	mg/L	ND (0.1) UJ	ND (0.1) UJ	-	-	-	-	-	-	-	-	-
Sulfite	mg/L	ND (1) UJ	ND (1) UJ	-	-	-	-	-	-	-	-	-
Total Dissolved Solids (TDS)	mg/L	282	450	-	-	-	255	262	-	-	-	-
Total Kjeldahl Nitrogen (TKN)	mg/L	ND (1)	3.9	-	-	-	4.48 J	1.96 J	-	-	-	-
Total Organic Carbon (TOC)	mg/L	6.2 J	5	-	-	-	6.8	7.5	-	-	-	-
Total Suspended Solids (TSS)	mg/L	118	82	-	-	-	18	14.5	-	-	-	-
Field Parameters												
Conductivity Field	umhos/cm	-	827	0.952	-	-	-	-	-	-	-	-
Dissolved Oxygen	mg/L	-	12.02	1.25	-	-	-	-	-	-	-	-
OVA Reading	ppm	-	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-	-21	79	-	-	-	-	-	-	-	-
pH Field	s.u.	-	6.51	7.46	-	-	-	-	-	-	-	-
Turbidity	ntu	-	61.6	7	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-BKP-016*	*GW-BP-004*	*GW-BP-005*	*GW-7830-0701-BKP-006*	*GW-7830-1201-BKP-003*	*GW-7830-1201-BKP-004*	*GW-7830-1201-BKP-004*	*020624AG-02*	*021217AE-05*
Sample Date:		*6/5/2000*	*12/19/2000*	*12/19/2000*	*7/2/2001*	*12/6/2001*	*12/6/2001*	*12/6/2001*	*6/24/2002*	*12/17/2002*
Parameter	*Units*			*Duplicate*				*Duplicate*		
Volatile Organics										
1,1,1-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1,2-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,2-Dichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,2-Dichloropropane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) J	ND (0.01) J	ND (0.01) J	ND (0.01) J	ND (0.01) UJ	ND (0.005)
2-Hexanone	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
2-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
3-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Acetone	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) J	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Benzene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromodichloromethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Carbon disulfide	mg/L	ND (0.005) J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Carbon tetrachloride	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chlorobenzene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloroethane	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Chloroform (Trichloromethane)	mg/L	0.002 J	ND (0.005)	ND (0.005)	0.002 J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloromethane (Methyl Chloride)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
cis-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Dibromochloromethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Ethyl Ether	mg/L	0.029	0.013	0.013	0.042	ND (0.01) J	ND (0.01) J	ND (0.01)	ND (0.01)	ND (0.01)
Ethylbenzene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
m&p-Xylene	mg/L	-	-	-	-	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Methylene chloride	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
o-Xylene	mg/L	-	-	-	-	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Styrene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Toluene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Vinyl acetate	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Vinyl chloride	mg/L	ND (0.01)	-	-	-	-	-	-	-	-
Xylene (total)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	-	-	-	-
TIC Volatile Organics										
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	-	-	-	-	-	-	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-
Ether A	mg/L	-	-	-	-	-	-	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics										
1,2,4-Trichlorobenzene	mg/L	ND (0.01)	-	-	-	-	-	-	ND (0.005)	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*		*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*		*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-BKP-016*	*GW-BP-004*	*GW-BP-005*	*GW-7830-0701-BKP-006*	*GW*	*-BKP-003*	*830-1201-BKP-004*	*020624AG-02*	*021217AE-05*
Sample Date:		*6/5/2000*	*12/19/2000*	*12/19/2000*	*7/2/2001*		*001*	*12/6/2001*	*6/24/2002*	*12/17/2002*
Parameter	*Units*			*Duplicate*				*Duplicate*		
1,2-Dichlorobenzene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
1,3-Dichlorobenzene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
1,4-Dichlorobenzene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
2,4,5-Trichlorophenol	mg/L	ND (0.05)	-	-	-				ND (0.005)	-
2,4,6-Trichlorophenol	mg/L	ND (0.01)	-	-	-				ND (0.005)	-
2,4-Dichlorophenol	mg/L	ND (0.01)	-	-	-				ND (0.005)	-
2,4-Dimethylphenol	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
2,4-Dinitrophenol	mg/L	ND (0.05)	-	-	-			-	ND (0.005)	-
2,4-Dinitrotoluene	mg/L	ND (0.01)	-	-	-			-	ND (0.025) UJ	-
2,6-Dinitrotoluene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
2-Chloronaphthalene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
2-Chlorophenol	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
2-Methylnaphthalene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
2-Methylphenol	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
2-Nitroaniline	mg/L	ND (0.05)	-	-	-			-	ND (0.005)	-
2-Nitrophenol	mg/L	ND (0.01)	-	-	-			-	ND (0.025) UJ	-
3,3'-Dichlorobenzidine	mg/L	ND (0.02) J	-	-	-			-	ND (0.005)	-
3-Nitroaniline	mg/L	ND (0.05)	-	-	-			-	ND (0.010) UJ	-
4,6-Dinitro-2-methylphenol	mg/L	ND (0.05)	-	-	-			-	ND (0.025) UJ	-
4-Bromophenyl phenyl ether	mg/L	ND (0.01)	-	-	-			-	ND (0.025)	-
4-Chloro-3-methylphenol	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
4-Chloroaniline	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
4-Chlorophenyl phenyl ether	mg/L	ND (0.01)	-	-	-			-	ND (0.005) UJ	-
4-Methylphenol	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
4-Nitroaniline	mg/L	ND (0.05)	-	-	-			-	ND (0.005)	-
4-Nitrophenol	mg/L	ND (0.05)	-	-	-			-	ND (0.025) UJ	-
Acenaphthene	mg/L	ND (0.01)	-	-	-			-	ND (0.025) UJ	-
Acenaphthylene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Anthracene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Benzo(a)anthracene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Benzo(a)pyrene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Benzo(b)fluoranthene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Benzo(g,h,i)perylene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Benzo(k)fluoranthene	mg/L	ND (0.01) J	-	-	-			-	ND (0.005) UJ	-
Benzoic acid	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Benzyl Alcohol	mg/L	-	-	-	-			-	ND (0.005)	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-			-	-	-
bis(2-Chloroethyl)ether	mg/L	ND (0.01)	-	-	-			-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Butyl benzylphthalate	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Carbazole	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Chrysene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Dibenz(a,h)anthracene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Dibenzofuran	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Diethyl phthalate	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Dimethyl phthalate	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Di-n-butylphthalate	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Di-n-octyl phthalate	mg/L	ND (0.01)	-	-	-			-	ND (0.005) U	-
Fluoranthene	mg/L	ND (0.01)	-	-	-			-	ND (0.005) UJ	-
Fluorene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Hexachlorobenzene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Hexachlorobutadiene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Hexachlorocyclopentadiene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Hexachloroethane	mg/L	ND (0.01)	-	-	-			-	ND (0.005) UJ	-
Indeno(1,2,3-cd)pyrene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Isophorone	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Naphthalene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Nitrobenzene	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
N-Nitrosodi-n-propylamine	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
N-Nitrosodiphenylamine	mg/L	ND (0.01)	-	-	-			-	ND (0.005)	-
Pentachlorophenol	mg/L	ND (0.05)	-	-	-			-	ND (0.005) UJ	-
Phenanthrene	mg/L	ND (0.01)	-	-	-			-	ND (0.025)	-
									ND (0.005)	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample ID:* / *Sample Date:* / *Parameter*	*Units*	*MW-9B OU2 GW-BKP-016 6/5/2000*	*MW-9B OU2 GW-BP-004 12/19/2000*	*MW-9B OU2 GW-BP-005 12/19/2000 Duplicate*	*MW-9B OU2 GW-7830-0701-BKP-006 7/2/2001*	*MW-9B OU2 GW-7830-1201-BKP-003 12/6/2001*	*MW-9B OU2 GW-7830-1201-BKP-004 12/6/2001 Duplicate*	*MW-9B OU2 020624AG-02 6/24/2002*	*MW-9B OU2 021217AE-05 12/17/2002*
Phenol	mg/L	ND (0.01)	-	-	-	-	-	ND (0.005)	-
Pyrene	mg/L	ND (0.01)	-	-	-	-	-	ND (0.005)	-
TIC Semi-Volatile Organics									
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	-	-	-	-	-	-	-	-
Lidocaine A	mg/L	-	-	-	-	-	-	-	-
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-
Talbutal A	mg/L	-	-	-	-	-	-	-	-
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-
Unknown B	mg/L	-	-	-	-	-	-	0.002 BJ	-
Unknown C	mg/L	-	-	-	-	-	-	0.005 BJ	-
								0.001 J	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample ID:* / *Sample Date:* / *Parameter*	*Units*	*MW-9B OU2 GW-BKP-016 6/5/2000*	*MW-9B OU2 GW-BP-004 12/19/2000*	*MW-9B OU2 GW-BP-005 12/19/2000 Duplicate*	*MW-9B OU2 GW-7830-0701-BKP-006 7/2/2001*	*MW-9B OU2 GW-7830-1201-BKP-003 12/6/2001*	*MW-9B OU2 GW-7830-1201-BKP-004 12/6/2001 Duplicate*	*MW-9B OU2 020624AG-02 6/24/2002*	*MW-9B OU2 021217AE-05 12/17/2002*
Unknown D	mg/L	-	-	-	-	-	-	0.007 J	-
Unknown E	mg/L	-	-	-	-	-	-	0.003 J	-
Unknown F	mg/L	-	-	-	-	-	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	0.001 BJ	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-
Metals									
Iron	mg/L	6.23	-	-	-	-	-	8.45	-
Iron (Dissolved)	mg/L	ND (0.139)	-	-	-	-	-	4.47	-
Manganese (Dissolved)	mg/L	-	-	-	-	-	-	-	-
Gases									
Methane	mg/L	-	-	-	-	-	-	-	-
Biological									
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-
Benzene Specific Microbial Population	cfu/mL	900	-	-	-	-	-	500	-
Total Microbial Population	cfu/mL	11500	-	-	-	-	-	5800	-
General Chemistry									
Alkalinity, Total (As CaCO3)	mg/L	170	-	-	-	-	-	185	-
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	0.32	-	-	-	-	-	1.85	-
Orthophosphate	mg/L	0.46	-	-	-	-	-	-	-
pH	s.u.	-	-	-	-	-	-	-	-
pH (water)	s.u.	7.0	-	-	-	-	-	-	-
Phosphate, Total	mg/L	-	-	-	-	-	-	0.41	-
Sulfate	mg/L	2.5	-	-	-	-	-	ND (1)	-
Sulfide	mg/L	-	-	-	-	-	-	ND (0.1)	-
Sulfite	mg/L	-	-	-	-	-	-	ND (1)	-
Total Dissolved Solids (TDS)	mg/L	222	-	-	-	-	-	252	-
Total Kjeldahl Nitrogen (TKN)	mg/L	2.24	-	-	-	-	-	1.12	-
Total Organic Carbon (TOC)	mg/L	9.3	-	-	-	-	-	8.2	-
Total Suspended Solids (TSS)	mg/L	25	-	-	-	-	-	20	-
Field Parameters									
Conductivity Field	umhos/cm	-	-	-	329	-	-	-	464
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-
OVA Reading	ppm	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-	-	-	-	-	-	-	-
pH Field	s.u.	-	-	-	6.58	-	-	-	7.8
Turbidity	ntu	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-10B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*030627014-004*	*030627014-005*	*031202032-003*	*040701003-001*	*041207030-003*	*A5687305*	*A5E26912*	*MW9B*	*MW9B*	*GW-AK-09**
Sample Date:		*6/26/2003*	*6/26/2003*	*12/2/2003*	*6/30/2004*	*12/7/2004*	*6/30/2005*	*12/13/2005*	*5/18/2006*	*6/26/2006*	*6/24/1998*
			Duplicate								
Parameter	*Units*										
Volatile Organics											
1,1,1-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050) UJ	ND (0.01)
1,1,2-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
1,1-Dichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005) UJ	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
1,1-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005) UJ	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
1,2-Dichloroethane	mg/L	ND (0.005) UJ	ND (0.005) UJ	ND (0.005) UJ	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
1,2-Dichloropropane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01) UJ	ND (0.01)
2-Hexanone	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01) UJ	ND (0.01)
2-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01) UJ	-	-	ND (0.01)
3-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01) UJ	-	-	ND (0.01)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01) UJ	ND (0.01)
Acetone	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01) UJ	ND (0.01)	ND (0.01) UJ	-	ND (0.01)	ND (0.01)
Benzene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0005)	ND (0.0010)	ND (0.0010)	ND (0.01)
Bromodichloromethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
Bromoform	mg/L	ND (0.005) UJ	ND (0.005) UJ	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005) UJ	-	ND (0.0050)	ND (0.01)
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01) UJ	-	ND (0.01)	ND (0.01)
Carbon disulfide	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005) UJ	ND (0.005) UJ	ND (0.005) UJ	-	ND (0.0050)	ND (0.01)
Carbon tetrachloride	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
Chlorobenzene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
Chloroethane	mg/L	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)
Chloroform (Trichloromethane)	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
Chloromethane (Methyl Chloride)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01) UJ	-	ND (0.01) UJ	ND (0.01)
cis-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
cis-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
Dibromochloromethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005) UJ	-	ND (0.0050)	ND (0.01)
Ethyl Ether	mg/L	0.039	0.038	0.014 J	0.007 J	0.009 J	0.0099 J	0.013 J	0.012	0.01	ND (0.01)
Ethylbenzene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
m&p-Xylene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	-
Methylene chloride	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
o-Xylene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	-
Styrene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
Tetrachloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
Toluene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
trans-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
trans-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	ND (0.005) UJ	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)
Trichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005) UJ	-	ND (0.0050)	ND (0.01)
Vinyl acetate	mg/L	-	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)
Xylene (total)	mg/L	-	-	-	-	-	-	-	-	-	ND (0.01)
TIC Volatile Organics											
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	-	-	0.08 BJN	-	-	-	-	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ether A	mg/L	-	-	-	-	-	-	0.013 JN	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	0.006 BJ	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	0.00928	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics											
1,2,4-Trichlorobenzene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample ID:* / *Sample Date:* / *Parameter*	*Units*	*MW-9B OU2 030627014-004 6/26/2003*	*MW-9B OU2 030627014-005 6/26/2003 Duplicate*	*MW-9B OU2 031202032-003 12/2/2003*	*MW-9B OU2 040701003-001 6/30/2004*	*MW-9B OU2 041207030-003 12/7/2004*	*MW-9B OU2 A5687305 6/30/2005*	*MW-9B OU2 A5E26912 12/13/2005*	*MW-9B OU2 MW9B 5/18/2006*	*MW-9B OU2 MW9B 6/26/2006*	*MW-10B OU2 GW-AK-09* 6/24/1998*
1,2-Dichlorobenzene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	ND (0.005) UJ	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	ND (0.025) UJ	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	ND (0.025) UJ	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	ND (0.010) UJ	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	ND (0.025) UJ	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	ND (0.025) UJ	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	ND (0.005) UJ	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	ND (0.025) UJ	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	ND (0.025) UJ	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	ND (0.005) UJ	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	ND (0.005) UJ	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	ND (0.005) UJ	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	ND (0.005) UJ	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	ND (0.005) UJ	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	ND (0.025)	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-9B*	*MW-10B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*030627014-004*	*030627014-005*	*031202032-003*	*040701003-001*	*041207030-003*	*A5687305*	*A5E26912*	*MW9B*	*MW9B*	*GW-AK-09**
Sample Date:		*6/26/2003*	*6/26/2003*	*12/2/2003*	*6/30/2004*	*12/7/2004*	*6/30/2005*	*12/13/2005*	*5/18/2006*	*6/26/2006*	*6/24/1998*
Parameter	*Units*		*Duplicate*								
Phenol	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	ND (0.005)	-	-	-	-	-	-
TIC Semi-Volatile Organics											
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-	-	-
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	-	-	-	-	-	-	-	-	-	-
Lidocaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Talbutal A	mg/L	-	-	-	-	-	-	-	-	-	-
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown C	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample ID:* / *Sample Date:* / *Parameter*	*Units*	*MW-9B OU2 030627014-004 6/26/2003*	*MW-9B OU2 030627014-005 6/26/2003 Duplicate*	*MW-9B OU2 031202032-003 12/2/2003*	*MW-9B OU2 040701003-001 6/30/2004*	*MW-9B OU2 041207030-003 12/7/2004*	*MW-9B OU2 A5687305 6/30/2005*	*MW-9B OU2 A5E26912 12/13/2005*	*MW-9B OU2 MW9B 5/18/2006*	*MW-9B OU2 MW9B 6/26/2006*	*MW-10B OU2 GW-AK-09* 6/24/1998*
Unknown D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Iron	mg/L	-	-	-	15.3	-	-	-	-	-	ND (13.8)
Iron (Dissolved)	mg/L	-	-	-	0.0299 B	-	-	-	17	7.44 J	ND (7.81)
Manganese (Dissolved)	mg/L	-	-	-	-	-	-	-	1.26	1.12 J	-
Gases											
Methane	mg/L	-	-	-	-	-	-	-	0.95 E	4.4 J	-
Biological											
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Benzene Specific Microbial Population	cfu/mL	-	-	-	5700	-	-	-	-	-	1440
Total Microbial Population	cfu/mL	-	-	-	20000	-	-	-	-	-	4800
General Chemistry											
Alkalinity, Total (As CaCO3)	mg/L	-	-	-	180	-	-	-	130	64.2	155
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	7.3	-	-
Nitrate (as N)	mg/L	-	-	-	0.09	-	-	-	ND (0.050)	ND (0.050)	0.408
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	0.13
pH	s.u.	-	-	-	6.8 J	-	-	-	-	-	-
pH (water)	s.u.	-	-	-	-	-	-	-	-	-	6.7
Phosphate, Total	mg/L	-	-	-	0.76	-	-	-	-	-	-
Sulfate	mg/L	-	-	-	ND (1)	-	-	-	ND (4.0)	ND (2.0)	33.5
Sulfide	mg/L	-	-	-	ND (0.1) UJ	-	-	-	-	-	-
Sulfite	mg/L	-	-	-	ND (1) UJ	-	-	-	-	-	-
Total Dissolved Solids (TDS)	mg/L	-	-	-	260	-	-	-	-	-	253
Total Kjeldahl Nitrogen (TKN)	mg/L	-	-	-	2.5	-	-	-	-	-	ND (1)
Total Organic Carbon (TOC)	mg/L	-	-	-	7.8	-	-	-	-	-	ND (3)
Total Suspended Solids (TSS)	mg/L	-	-	-	37	-	-	-	-	-	30
Field Parameters											
Conductivity Field	umhos/cm	3540	-	-	723	580	559	500	0.539	0.57	-
Dissolved Oxygen	mg/L	-	-	-	10.86	-	-	-	5.03	1.15	-
OVA Reading	ppm	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-	-	-	-19	-	-	-	-103	-122	-
pH Field	s.u.	7.4	-	-	6.37	6.8	7.32	7.3	6.79	7.58	-
Turbidity	ntu	-	-	-	30.8	-	-	-	8	6	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-10B*	*MW-10B*	*MW-10B*	*MW-10B*	*MW-11B*	*MW-11B*	*MW-11B*	*MW-11B*	*MW-11B*	*MW-12B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-BKP-034*	*020624AG-03*	*040701003-006*	*MW10B*	*GW-AK-07*	*GW-BKP-032*	*020624AG-07*	*040709001-001*	*MW11B*	*GW-AK-19***
Sample Date:		*6/7/2000*	*6/24/2002*	*6/30/2004*	*6/27/2006*	*6/24/1998*	*6/7/2000*	*6/24/2002*	*7/8/2004*	*6/26/2006*	*6/25/1998*
Parameter	*Units*										
Volatile Organics											
1,1,1-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050) UJ	ND (0.05)
1,1,2-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
1,1-Dichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
1,1-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
1,2-Dichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
1,2-Dichloropropane	mg/L	ND (0.005)	ND (0.005) UJ	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01)	ND (0.01) UJ	ND (0.01) UJ	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ	ND (0.05) UJ
2-Hexanone	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.05)
2-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.05)
3-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.05)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.05) UJ
Acetone	mg/L	ND (0.01) J	ND (0.01)	ND (0.01) UJ	ND (0.02) UJ	ND (0.01)	ND (0.01) J	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.05)
Benzene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0020)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0010)	ND (0.05)
Bromodichloromethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
Bromoform	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01) UJ	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.02) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.05)
Carbon disulfide	mg/L	ND (0.005) J	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005) J	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
Carbon tetrachloride	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01) UJ	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
Chlorobenzene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
Chloroethane	mg/L	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.02) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.05)
Chloroform (Trichloromethane)	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
Chloromethane (Methyl Chloride)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.02) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.05)
cis-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
cis-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
Dibromochloromethane	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
Ethyl Ether	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	0.0031 J	ND (0.01)	0.015	ND (0.01)	ND (0.01) UJ	0.011	1.2
Ethylbenzene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
m&p-Xylene	mg/L	-	ND (0.005)	ND (0.005)	ND (0.01)	-	-	ND (0.005)	ND (0.005)	ND (0.0050)	-
Methylene chloride	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
o-Xylene	mg/L	-	ND (0.005)	ND (0.005)	ND (0.01)	-	-	ND (0.005)	ND (0.005)	ND (0.0050)	-
Styrene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
Tetrachloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
Toluene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
trans-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
trans-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
Trichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.05)
Vinyl acetate	mg/L	ND (0.01)	-	-	-	ND (0.01)	ND (0.01)	-	-	-	-
Vinyl chloride	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.010)	ND (0.01)	ND (0.05)
Xylene (total)	mg/L	ND (0.005)	-	-	-	ND (0.01)	ND (0.005)	-	-	-	ND (0.05)
TIC Volatile Organics											
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	-	0.09 BJN	-	-	-	-	0.1 BJN	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics											
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-10B*	*MW-10B*	*MW-10B*	*MW-10B*	*MW-11B*	*MW-11B*	*MW-11B*	*MW-11B*	*MW-11B*	*MW-12B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-BKP-034*	*020624AG-03*	*040701003-006*	*MW10B*	*GW-AK-07*	*GW-BKP-032*	*020624AG-07*	*040709001-001*	*MW11B*	*GW-AK-19***
Sample Date:		*6/7/2000*	*6/24/2002*	*6/30/2004*	*6/27/2006*	*6/24/1998*	*6/7/2000*	*6/24/2002*	*7/8/2004*	*6/26/2006*	*6/25/1998*
Parameter	*Units*										
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-10B*	*MW-10B*	*MW-10B*	*MW-10B*	*MW-11B*	*MW-11B*	*MW-11B*	*MW-11B*	*MW-11B*	*MW-12B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-BKP-034*	*020624AG-03*	*040701003-006*	*MW10B*	*GW-AK-07*	*GW-BKP-032*	*020624AG-07*	*040709001-001*	*MW11B*	*GW-AK-19***
Sample Date:		*6/7/2000*	*6/24/2002*	*6/30/2004*	*6/27/2006*	*6/24/1998*	*6/7/2000*	*6/24/2002*	*7/8/2004*	*6/26/2006*	*6/25/1998*
Parameter	*Units*										
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
TIC Semi-Volatile Organics											
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-	-	-
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	-	-	-	-	-	-	-	-	-	-
Lidocaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Talbutal A	mg/L	-	-	-	-	-	-	-	-	-	-
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown C	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-10B*	*MW-10B*	*MW-10B*	*MW-10B*	*MW-11B*	*MW-11B*	*MW-11B*	*MW-11B*	*MW-11B*	*MW-12B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-BKP-034*	*020624AG-03*	*040701003-006*	*MW10B*	*GW-AK-07*	*GW-BKP-032*	*020624AG-07*	*040709001-001*	*MW11B*	*GW-AK-19***
Sample Date:		*6/7/2000*	*6/24/2002*	*6/30/2004*	*6/27/2006*	*6/24/1998*	*6/7/2000*	*6/24/2002*	*7/8/2004*	*6/26/2006*	*6/25/1998*
Parameter	***Units***										
Unknown D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Iron	mg/L	19.7	5.43	7.61	-	28.6	19.2	3.37	2.51	-	51.6
Iron (Dissolved)	mg/L	17.4	0.561	ND (0.0084)	-	ND (19.3)	9.72	0.182	0.024 B	-	34
Manganese (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Gases											
Methane	mg/L	-	-	-	-	-	-	-	-	-	-
Biological											
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Benzene Specific Microbial Population	cfu/mL	335	610	570	-	480	50	670	360	-	8400
Total Microbial Population	cfu/mL	8900	6800	2400	-	1740	240	6400	3500	-	17800
General Chemistry											
Alkalinity, Total (As CaCO3)	mg/L	215	180	180	-	230	145	180	175	-	210
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	0.03	0.3	0.53	-	0.03	0.2	2.34	4.67	-	ND (0.02)
Orthophosphate	mg/L	0.45 J	-	-	-	0.32	0.4 J	-	-	-	0.8
pH	s.u.	-	-	6.7 J	-	-	-	-	6.9 J	-	-
pH (water)	s.u.	6.7	-	-	-	6.7	6.7	-	-	-	6.6
Phosphate, Total	mg/L	-	0.23	0.3	-	-	-	1.8	0.12	-	-
Sulfate	mg/L	33.2	26.8	23.7	-	25.5	41.9	33.7	33.7	-	164
Sulfide	mg/L	-	ND (0.1) UJ	ND (0.1) UJ	-	-	-	ND (0.1) UJ	ND (0.1)	-	-
Sulfite	mg/L	-	ND (1) UJ	ND (1) UJ	-	-	-	ND (1) UJ	ND (1) UJ	-	-
Total Dissolved Solids (TDS)	mg/L	328	348	298	-	338	318	325	300	-	678
Total Kjeldahl Nitrogen (TKN)	mg/L	2.52	ND (1)	1.4	-	ND (1.96)	3.36	ND (1)	1.7	-	8.68
Total Organic Carbon (TOC)	mg/L	5.2	3.6	3.4	-	ND (5.6)	4.2	2.6	2.5	-	16
Total Suspended Solids (TSS)	mg/L	35	23.5	28.5	-	32	39	20	29	-	86
Field Parameters											
Conductivity Field	umhos/cm	-	-	722	0.506	-	-	-	725	0.522	-
Dissolved Oxygen	mg/L	-	-	14.78	2.32	-	-	-	3.84	6.22	-
OVA Reading	ppm	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-	-	-51	82	-	-	-	-46	115	-
pH Field	s.u.	-	-	6.49	7.37	-	-	-	6.53	7.36	-
Turbidity	ntu	-	-	72.4	60	-	-	-	48.5	4	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-BKP-017*	*GW-BKP-019*	*020620BH-05*	*040709001-002*	*050311026-002*	*A5227001*	*A5680602*	*A5E26902*	*MW12B*	*MW12B*
Sample Date:		*6/5/2000*	*6/5/2000*	*6/20/2002*	*7/8/2004*	*3/11/2005*	*3/11/2005*	*6/29/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*
			Duplicate								
Parameter	*Units*										
Volatile Organics											
1,1,1-Trichloroethane	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
1,1,2-Trichloroethane	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
1,1-Dichloroethane	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
1,1-Dichloroethene	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
1,2-Dichloroethane	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
1,2-Dichloropropane	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.05)	ND (0.05)	ND (0.05) UJ	ND (0.01) UJ	ND (0.01)	-	ND (0.01)	ND (0.01)	-	ND (0.02)
2-Hexanone	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	-	ND (0.02)
2-Methylthiophene	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.01)	-	-	ND (0.01)	ND (0.01) UJ	-	-
3-Methylthiophene	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01) UJ	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	-	ND (0.02)
Acetone	mg/L	ND (0.05) J	ND (0.05) J	ND (0.05)	ND (0.01) UJ	ND (0.01)	-	0.0029 J	ND (0.01)	-	ND (0.02)
Benzene	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.0005)	ND (0.0010)	ND (0.0020)
Bromodichloromethane	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Bromoform	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005) UJ	-	ND (0.01)
Bromomethane (Methyl Bromide)	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	-	ND (0.02)
Carbon disulfide	mg/L	ND (0.025) J	ND (0.025) J	ND (0.025)	ND (0.005)	ND (0.005)	-	0.00022 J	ND (0.005)	-	ND (0.01)
Carbon tetrachloride	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Chlorobenzene	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Chloroethane	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.01) UJ	ND (0.01)	-	ND (0.01)	ND (0.01)	-	ND (0.02)
Chloroform (Trichloromethane)	mg/L	ND (0.025)	0.007 J	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Chloromethane (Methyl Chloride)	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	-	ND (0.02) UJ
cis-1,2-Dichloroethene	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
cis-1,3-Dichloropropene	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Dibromochloromethane	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005) UJ	-	ND (0.01)
Ethyl Ether	mg/L	0.8	0.82	0.75	1.1 J	0.13	-	0.69	0.078 J	0.32 D	0.14
Ethylbenzene	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
m&p-Xylene	mg/L	-	-	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Methylene chloride	mg/L	ND (0.037)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01) U
o-Xylene	mg/L	-	-	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Styrene	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Tetrachloroethene	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Toluene	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
trans-1,2-Dichloroethene	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
trans-1,3-Dichloropropene	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Trichloroethene	mg/L	ND (0.025)	ND (0.025)	ND (0.025)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Vinyl acetate	mg/L	ND (0.05)	ND (0.05)	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	ND (0.05)	ND (0.05)	ND (0.05)	ND (0.010)	ND (0.01)	-	ND (0.01)	ND (0.01)	-	ND (0.02)
Xylene (total)	mg/L	ND (0.025)	ND (0.025)	-	-	-	-	-	-	-	-
TIC Volatile Organics											
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	-	-	0.2 BJN	-	-	-	-	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	0.098 JN	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	0.01 JN	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics											
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-BKP-017*	*GW-BKP-019*	*020620BH-05*	*040709001-002*	*050311026-002*	*A5227001*	*A5680602*	*A5E26902*	*MW12B*	*MW12B*
Sample Date:		*6/5/2000*	*6/5/2000*	*6/20/2002*	*7/8/2004*	*3/11/2005*	*3/11/2005*	*6/29/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*
Parameter	*Units*		*Duplicate*								
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-BKP-017*	*GW-BKP-019*	*020620BH-05*	*040709001-002*	*050311026-002*	*A5227001*	*A5680602*	*A5E26902*	*MW12B*	*MW12B*
Sample Date:		*6/5/2000*	*6/5/2000*	*6/20/2002*	*7/8/2004*	*3/11/2005*	*3/11/2005*	*6/29/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*
Parameter	*Units*		*Duplicate*								
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
TIC Semi-Volatile Organics											
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-	-	-
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	-	-	-	-	-	-	-	-	-	-
Lidocaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Talbutal A	mg/L	-	-	-	-	-	-	-	-	-	-
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown C	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*	*MW-12B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-BKP-017*	*GW-BKP-019*	*020620BH-05*	*040709001-002*	*050311026-002*	*A5227001*	*A5680602*	*A5E26902*	*MW12B*	*MW12B*	
Sample Date:		*6/5/2000*	*6/5/2000*	*6/20/2002*	*7/8/2004*	*3/11/2005*	*3/11/2005*	*6/29/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*	
Parameter	*Units*		*Duplicate*									
Unknown D	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown E	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown F	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown G	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown H	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown I	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown J	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown K	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown L	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-	
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-	-	
Metals												
Iron	mg/L	52	52.3	53.3	56.5	-	33	29.4	-	-	-	
Iron (Dissolved)	mg/L	13.3	11.8	22.3	1.97	-	11.9	7.33	-	4.45	4.43 J	
Manganese (Dissolved)	mg/L	-	-	-	-	-	-	-	-	0.499	0.585 J	
Gases												
Methane	mg/L	-	-	-	-	-	-	-	-	0.12 E	0.096	
Biological												
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	5500	-	-	-	
Benzene Specific Microbial Population	cfu/mL	830	910	520	4500	-	930	610	-	-	-	
Total Microbial Population	cfu/mL	12500	12000	3000	11000	-	26000	-	-	-	-	
General Chemistry												
Alkalinity, Total (As CaCO3)	mg/L	235	250	200	240	-	144	187	-	160	106	
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-	5.2	-	
Nitrate (as N)	mg/L	ND (0.02)	ND (0.02)	0.03	0.3	-	0.087	0.083	-	ND (0.050)	ND (0.050)	
Orthophosphate	mg/L	0.74	1.32	-	-	-	-	-	-	-	-	
pH	s.u.	-	-	-	6.6 J	-	-	-	-	-	-	
pH (water)	s.u.	6.7	6.8	-	-	-	-	-	-	-	-	
Phosphate, Total	mg/L	-	-	1.6 J	2.97	-	1.8	1.6	-	-	-	
Sulfate	mg/L	110	109	95.8	81.3	-	96.4	85.0	-	79.4	71.9	
Sulfide	mg/L	-	-	ND (0.1) UJ	ND (0.1)	-	ND (1.0)	ND (1.0)	-	-	-	
Sulfite	mg/L	-	-	ND (1) UJ	ND (1) UJ	-	ND (2.0)	ND (2.0)	-	-	-	
Total Dissolved Solids (TDS)	mg/L	652	632	618	58.8	-	601	547	-	-	-	
Total Kjeldahl Nitrogen (TKN)	mg/L	10.64	10.08	5.6	7	-	2.8	5.5	-	-	-	
Total Organic Carbon (TOC)	mg/L	16	16	11 J	14.9	-	ND (1.0)	9.4	-	-	-	
Total Suspended Solids (TSS)	mg/L	140	132	164	242	-	119	65.0	-	-	-	
Field Parameters												
Conductivity Field	umhos/cm	-	-	-	1320	1150	1150	1140	1300	1.07	1.46	
Dissolved Oxygen	mg/L	-	-	-	4.61	9.77	9.77	-	-	5.22	1.21	
OVA Reading	ppm	-	-	-	-	0	0	-	-	-	-	
Oxidation reduction potential	millivolts	-	-	-	-75	-54	-54	-	-	-116	-148	
pH Field	s.u.	-	-	-	6.54	5	5	6.76	6.9	6.83	7.73	
Turbidity	ntu	-	-	-	68.9	23.2	23.2	-	-	19.2	7	

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-AK-15*	*GW-BKP-026*	*020620BH-02*	*040707001-005*	*050311026-001*	*A5227002*	*A5687301*	*A5E26903*	*MW13A*	*MW-AK-01*
Sample Date:		*6/25/1998*	*6/6/2000*	*6/20/2002*	*7/6/2004*	*3/11/2005*	*3/11/2005*	*6/30/2005*	*12/14/2005*	*6/26/2006*	*12/9/1997*
Parameter	*Units*										
Volatile Organics											
1,1,1-Trichloroethane	mg/L	ND (0.01)	ND (0.005)	ND (0.005) UJ	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050) UJ	ND (0.025)
1,1,2-Trichloroethane	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
1,1-Dichloroethane	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
1,1-Dichloroethene	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
1,2-Dichloroethane	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
1,2-Dichloropropane	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.05)
2-Hexanone	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.05)
2-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	-	ND (0.01)	ND (0.01) UJ	-	-
3-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01) UJ	-	ND (0.025)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.05)
Acetone	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	-	ND (0.01)	ND (0.01) UJ	0.0045 J	ND (0.05)
Benzene	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.0005)	ND (0.0010)	ND (0.025)
Bromodichloromethane	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
Bromoform	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005) UJ	ND (0.0050)	ND (0.025)
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.05)
Carbon disulfide	mg/L	ND (0.01)	ND (0.005) J	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005) UJ	ND (0.005)	ND (0.0050)	ND (0.025)
Carbon tetrachloride	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
Chlorobenzene	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
Chloroethane	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.05)
Chloroform (Trichloromethane)	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
Chloromethane (Methyl Chloride)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01) UJ	ND (0.01) UJ	ND (0.05)
cis-1,2-Dichloroethene	mg/L	ND (0.01)	ND (0.005)	ND (0.005) UJ	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
cis-1,3-Dichloropropene	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
Dibromochloromethane	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005) UJ	ND (0.0050)	ND (0.025)
Ethyl Ether	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	0.007 J	0.005 J	-	0.0053 J	0.0013 J	ND (0.0050)	0.65
Ethylbenzene	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
m&p-Xylene	mg/L	-	-	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	-
Methylene chloride	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
o-Xylene	mg/L	-	-	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	-
Styrene	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
Tetrachloroethene	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
Toluene	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
trans-1,2-Dichloroethene	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
trans-1,3-Dichloropropene	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.025)
Trichloroethene	mg/L	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005) UJ	ND (0.0050)	ND (0.025)
Vinyl acetate	mg/L	-	ND (0.01)	-	-	-	-	-	-	-	ND (0.05)
Vinyl chloride	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.010)	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.05)
Xylene (total)	mg/L	ND (0.01)	ND (0.005)	-	-	-	-	-	-	-	ND (0.025)
TIC Volatile Organics											
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	-	-	0.2 BJN	-	-	-	-	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	0.005 JN	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	0.015 JN	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	0.002 J	-	-	-
Semi-Volatile Organics											
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample ID:* / *Sample Date:* / *Parameter*	*Units*	*MW-13A OU2 GW-AK-15 6/25/1998*	*MW-13A OU2 GW-BKP-026 6/6/2000*	*MW-13A OU2 020620BH-02 6/20/2002*	*MW-13A OU2 040707001-005 7/6/2004*	*MW-13A OU2 050311026-001 3/11/2005*	*MW-13A OU2 A5227002 3/11/2005*	*MW-13A OU2 A5687301 6/30/2005*	*MW-13A OU2 A5E26903 12/14/2005*	*MW-13A OU2 MW13A 6/26/2006*	*MW-13B OU2 MW-AK-01 12/9/1997*
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-AK-15*	*GW-BKP-026*	*020620BH-02*	*040707001-005*	*050311026-001*	*A5227002*	*A5687301*	*A5E26903*	*MW13A*	*MW-AK-01*	
Sample Date:		*6/25/1998*	*6/6/2000*	*6/20/2002*	*7/6/2004*	*3/11/2005*	*3/11/2005*	*6/30/2005*	*12/14/2005*	*6/26/2006*	*12/9/1997*	
Parameter	*Units*											
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-	
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	
TIC Semi-Volatile Organics												
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-	-	
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-	-	
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-	-	
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-	-	-	
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-	
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-	-	
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-	
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-	
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-	
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-	
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-	
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-	-	
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-	-	
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-	
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-	-	
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-	-	-	
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-	
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-	
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-	
Hexobarital A	mg/L	-	-	-	-	-	-	-	-	-	-	
Lidocaine A	mg/L	-	-	-	-	-	-	-	-	-	-	
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-	
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-	-	-	
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-	-	
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-	
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-	
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-	
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-	-	
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Sulfur A	mg/L	-	-	-	-	-	-	-	-	-	-	
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Talbutal A	mg/L	-	-	-	-	-	-	-	-	-	-	
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown B	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown C	mg/L	-	-	-	-	-	-	-	-	-	-	

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13A*	*MW-13B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-AK-15*	*GW-BKP-026*	*020620BH-02*	*040707001-005*	*050311026-001*	*A5227002*	*A5687301*	*A5E26903*	*MW13A*	*MW-AK-01*
Sample Date:		*6/25/1998*	*6/6/2000*	*6/20/2002*	*7/6/2004*	*3/11/2005*	*3/11/2005*	*6/30/2005*	*12/14/2005*	*6/26/2006*	*12/9/1997*
Parameter	*Units*										
Unknown D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Iron	mg/L	-	-	30.8	22.1	-	12.8	6.94	-	-	-
Iron (Dissolved)	mg/L	-	-	0.486	3.39	-	ND (0.05)	0.166	-	ND (0.050) UJ	-
Manganese (Dissolved)	mg/L	-	-	-	-	-	-	-	-	ND (0.0030) UJ	-
Gases											
Methane	mg/L	-	-	-	-	-	-	-	-	ND (0.0010)	-
Biological											
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	NO GROW	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	120	-	-	-	-
General Chemistry											
Alkalinity, Total (As CaCO3)	mg/L	-	-	275	230	-	211	198	-	271	-
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	-	0.08	0.16	-	0.26	0.14	-	ND (0.050)	-
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-	-
pH	s.u.	-	-	-	6.2 J	-	-	-	-	-	-
pH (water)	s.u.	-	-	-	-	-	-	-	-	-	-
Phosphate, Total	mg/L	-	-	1.5 J	0.79	-	2.8	0.78	-	-	-
Sulfate	mg/L	-	-	32.7	14.3	-	28.5	30.6	-	25.1	-
Sulfide	mg/L	-	-	ND (0.1) UJ	ND (0.1)	-	ND (1.0)	ND (1.0)	-	-	-
Sulfite	mg/L	-	-	ND (1) UJ	ND (1) UJ	-	ND (2.0)	ND (2.0)	-	-	-
Total Dissolved Solids (TDS)	mg/L	-	-	800	1300	-	1350	1410	-	-	-
Total Kjeldahl Nitrogen (TKN)	mg/L	-	-	ND (1)	2.2	-	0.66	0.60	-	-	-
Total Organic Carbon (TOC)	mg/L	-	-	5.4 J	4.8	-	ND (1.0)	2.6	-	-	-
Total Suspended Solids (TSS)	mg/L	-	-	10.9	119	-	61.0	35.0	-	-	-
Field Parameters											
Conductivity Field	umhos/cm	-	-	-	-	2040	2040	1960	1700	1.73	-
Dissolved Oxygen	mg/L	-	-	-	-	11.21	11.21	-	-	3.08	-
OVA Reading	ppm	-	-	-	-	0	0	-	-	-	-
Oxidation reduction potential	millivolts	-	-	-	-	124	124	-	-	-111	-
pH Field	s.u.	-	-	-	-	4.64	4.64	7.08	7.4	8.07	-
Turbidity	ntu	-	-	-	-	919	919	-	-	169	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-AK-16*	*GW-AK-01*	*MW-JR-06*	*MW-JR-07*	*GW-BKP-027*	*GW-BP-007*	*GW-7830-0701-BKP-002*	*GW-7830-1201-BKP-005*
Sample Date:		*6/25/1998*	*12/15/1998*	*6/14/1999*	*12/8/1999*	*6/6/2000*	*12/20/2000*	*7/2/2001*	*12/7/2001*
Parameter	*Units*								*Duplicate*
Volatile Organics									
1,1,1-Trichloroethane	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
1,1,2-Trichloroethane	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
1,1-Dichloroethane	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
1,1-Dichloroethene	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
1,2-Dichloroethane	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
1,2-Dichloropropane	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.05)	ND (0.05) J	ND (0.02)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.05)
2-Hexanone	mg/L	ND (0.05)	ND (0.05)	ND (0.02)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.05) J
2-Methylthiophene	mg/L	ND (0.05)	-	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.05)
3-Methylthiophene	mg/L	ND (0.05)	ND (0.025)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.05)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.05)	ND (0.05)	ND (0.02)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.05)
Acetone	mg/L	ND (0.05)	ND (0.05)	ND (0.02)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.05)
Benzene	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
Bromodichloromethane	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
Bromoform	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
Bromomethane (Methyl Bromide)	mg/L	ND (0.05)	ND (0.05)	ND (0.02)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.05)
Carbon disulfide	mg/L	ND (0.05) UJ	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005) J	ND (0.005)	ND (0.025)	ND (0.025)
Carbon tetrachloride	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
Chlorobenzene	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
Chloroethane	mg/L	ND (0.05)	ND (0.05)	ND (0.02)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.05)
Chloroform (Trichloromethane)	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
Chloromethane (Methyl Chloride)	mg/L	ND (0.05) UJ	ND (0.05)	ND (0.02)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.05)
cis-1,2-Dichloroethene	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
cis-1,3-Dichloropropene	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
Dibromochloromethane	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
Ethyl Ether	mg/L	0.91	0.81	0.68	0.66	0.5	0.3	0.59	0.7 J
Ethylbenzene	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
m&p-Xylene	mg/L	-	-	ND (0.01)	-	-	-	-	ND (0.025)
Methylene chloride	mg/L	ND (0.05)	ND (0.044)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
o-Xylene	mg/L	-	-	ND (0.01)	-	-	-	-	ND (0.025)
Styrene	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
Tetrachloroethene	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
Toluene	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
trans-1,2-Dichloroethene	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
trans-1,3-Dichloropropene	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
Trichloroethene	mg/L	ND (0.05)	ND (0.025)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	ND (0.025)
Vinyl acetate	mg/L	-	ND (0.05)	ND (0.02) J	ND (0.02)	ND (0.01)	-	-	-
Vinyl chloride	mg/L	ND (0.05) UJ	ND (0.05)	ND (0.02)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.05) J
Xylene (total)	mg/L	ND (0.05)	ND (0.025)	-	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.025)	-
TIC Volatile Organics									
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	-	-	-	-	-	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-
Ether A	mg/L	-	-	-	-	-	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	-	-
Semi-Volatile Organics									
1,2,4-Trichlorobenzene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-AK-16*	*GW-AK-01*	*MW-JR-06*	*MW-JR-07*	*GW-BKP-027*	*GW-BP-007*	*GW-7830-0701-BKP-002*	*GW-7830-1201-BKP-005*
Sample Date:		*6/25/1998*	*12/15/1998*	*6/14/1999*	*12/8/1999*	*6/6/2000*	*12/20/2000*	*7/2/2001*	*12/7/2001*
Parameter	*Units*								*Duplicate*
1,2-Dichlorobenzene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
1,3-Dichlorobenzene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
1,4-Dichlorobenzene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
2,4,5-Trichlorophenol	mg/L	ND (0.025)	-	-	-	ND (0.05)	-	-	-
2,4,6-Trichlorophenol	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
2,4-Dichlorophenol	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
2,4-Dimethylphenol	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
2,4-Dinitrophenol	mg/L	ND (0.025)	-	-	-	R	-	-	-
2,4-Dinitrotoluene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
2,6-Dinitrotoluene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
2-Chloronaphthalene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
2-Chlorophenol	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
2-Methylnaphthalene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
2-Methylphenol	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
2-Nitroaniline	mg/L	ND (0.025)	-	-	-	ND (0.05)	-	-	-
2-Nitrophenol	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
3,3'-Dichlorobenzidine	mg/L	ND (0.01)	-	-	-	ND (0.02) J	-	-	-
3-Nitroaniline	mg/L	ND (0.025)	-	-	-	ND (0.05)	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	ND (0.025)	-	-	-	ND (0.05)	-	-	-
4-Bromophenyl phenyl ether	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
4-Chloro-3-methylphenol	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
4-Chloroaniline	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
4-Chlorophenyl phenyl ether	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
4-Methylphenol	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
4-Nitroaniline	mg/L	ND (0.025)	-	-	-	ND (0.05)	-	-	-
4-Nitrophenol	mg/L	ND (0.025)	-	-	-	ND (0.05)	-	-	-
Acenaphthene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Acenaphthylene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Anthracene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Benzo(a)anthracene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Benzo(a)pyrene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Benzo(b)fluoranthene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Benzo(g,h,i)perylene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Benzo(k)fluoranthene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
bis(2-Chloroethyl)ether	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Butyl benzylphthalate	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Carbazole	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Chrysene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Dibenz(a,h)anthracene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Dibenzofuran	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Diethyl phthalate	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Dimethyl phthalate	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Di-n-butylphthalate	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Di-n-octyl phthalate	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Fluoranthene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Fluorene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Hexachlorobenzene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Hexachlorobutadiene	mg/L	ND (0.01)	-	-	-	ND (0.01) J	-	-	-
Hexachlorocyclopentadiene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Hexachloroethane	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Isophorone	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Naphthalene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Nitrobenzene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
N-Nitrosodi-n-propylamine	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
N-Nitrosodiphenylamine	mg/L	ND (0.01)	-	-	-	ND (0.01) J	-	-	-
Pentachlorophenol	mg/L	ND (0.025)	-	-	-	ND (0.05)	-	-	-
Phenanthrene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-AK-16*	*GW-AK-01*	*MW-JR-06*	*MW-JR-07*	*GW-BKP-027*	*GW-BP-007*	*GW-7830-0701-BKP-002*	*GW-7830-1201-BKP-005*
Sample Date:		*6/25/1998*	*12/15/1998*	*6/14/1999*	*12/8/1999*	*6/6/2000*	*12/20/2000*	*7/2/2001*	*12/7/2001*
Parameter	*Units*								*Duplicate*
Phenol	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
Pyrene	mg/L	ND (0.01)	-	-	-	ND (0.01)	-	-	-
TIC Semi-Volatile Organics									
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-
Aminopyrine A	mg/L	0.004 JN	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	0.006 JN	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	0.006 JN	-	-	-	-	-	-	-
Lidocaine A	mg/L	-	-	-	-	-	-	-	-
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	0.02 JN	-	-	-	-	-	-	-
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-
Talbutal A	mg/L	0.02 JN	-	-	-	-	-	-	-
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-
Unknown A	mg/L	0.004 J	-	-	-	-	-	-	-
Unknown B	mg/L	0.002 J	-	-	-	-	-	-	-
Unknown C	mg/L	0.01 J	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample ID:* / *Sample Date:* / *Parameter*	*Units*	*MW-13B OU2 GW-AK-16 6/25/1998*	*MW-13B OU2 GW-AK-01 12/15/1998*	*MW-13B OU2 MW-JR-06 6/14/1999*	*MW-13B OU2 MW-JR-07 12/8/1999*	*MW-13B OU2 GW-BKP-027 6/6/2000*	*MW-13B OU2 GW-BP-007 12/20/2000*	*MW-13B OU2 GW-7830-0701-BKP-002 7/2/2001*	*MW-13B OU2 GW-7830-1201-BKP-005 12/7/2001 Duplicate*
Unknown D	mg/L	0.004 J	-	-	-	-	-	-	-
Unknown E	mg/L	0.003 J	-	-	-	-	-	-	-
Unknown F	mg/L	0.02 J	-	-	-	-	-	-	-
Unknown G	mg/L	0.006 J	-	-	-	-	-	-	-
Unknown H	mg/L	0.01 J	-	-	-	-	-	-	-
Unknown I	mg/L	0.04 J	-	-	-	-	-	-	-
Unknown J	mg/L	0.05 J	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	0.002 J	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	0.006 J	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	0.004 J	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	0.005 J	-	-	-	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-
Metals									
Iron	mg/L	ND (22.3)	-	-	-	21.4	-	-	-
Iron (Dissolved)	mg/L	ND (13.8)	-	-	-	9.77	-	-	-
Manganese (Dissolved)	mg/L	-	-	-	-	-	-	-	-
Gases									
Methane	mg/L	-	-	-	-	-	-	-	-
Biological									
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-
Benzene Specific Microbial Population	cfu/mL	800	-	-	-	65	-	-	-
Total Microbial Population	cfu/mL	4800	-	-	-	175	-	-	-
General Chemistry									
Alkalinity, Total (As CaCO3)	mg/L	295	-	-	-	325	-	-	-
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	0.07	-	-	-	0.03	-	-	-
Orthophosphate	mg/L	0.69 J	-	-	-	0.63	-	-	-
pH	s.u.	-	-	-	-	-	-	-	-
pH (water)	s.u.	6.8	-	-	-	6.8	-	-	-
Phosphate, Total	mg/L	-	-	-	-	-	-	-	-
Sulfate	mg/L	11.5	-	-	-	ND (2)	-	-	-
Sulfide	mg/L	-	-	-	-	-	-	-	-
Sulfite	mg/L	-	-	-	-	-	-	-	-
Total Dissolved Solids (TDS)	mg/L	482	-	-	-	402	-	-	-
Total Kjeldahl Nitrogen (TKN)	mg/L	9.52	-	-	-	8.12	-	-	-
Total Organic Carbon (TOC)	mg/L	14	-	-	-	19	-	-	-
Total Suspended Solids (TSS)	mg/L	48	-	-	-	57	-	-	-
Field Parameters									
Conductivity Field	umhos/cm	-	-	-	-	-	-	563	-
Dissolved Oxygen	mg/L	-	-	-	-	-	-	-	-
OVA Reading	ppm	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-	-	-	-	-	-	-	-
pH Field	s.u.	-	-	-	-	-	-	6.84	-
Turbidity	ntu	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-7830-1201-BKP-007*	*020620BH-01*	*021218AC-02*	*030627014-007*	*031202032-004*	*040707061-003*	*041207030-004*	*A5680601*	*A5680603*
Sample Date:		*12/7/2001*	*6/20/2002*	*12/18/2002*	*6/26/2003*	*12/2/2003*	*7/7/2004*	*12/7/2004*	*6/29/2005*	*6/29/2005*
									Duplicate	
Parameter	*Units*									
Volatile Organics										
1,1,1-Trichloroethane	mg/L	ND (0.025)	ND (0.005) UJ	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1,2-Trichloroethane	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethane	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01) UJ	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,1-Dichloroethene	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005) UJ	ND (0.005)	ND (0.005)
1,2-Dichloroethane	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01) UJ	ND (0.01) UJ	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
1,2-Dichloropropane	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.05)	ND (0.01)	ND (0.005)	ND (0.02)	ND (0.02)	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)
2-Hexanone	mg/L	ND (0.05) J	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
2-Methylthiophene	mg/L	ND (0.05)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.02)	ND (0.01)	-	ND (0.01)	ND (0.01)
3-Methylthiophene	mg/L	ND (0.05)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.02)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.05)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Acetone	mg/L	ND (0.05) J	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.02)	ND (0.01) UJ	ND (0.01) UJ	0.0037 J	0.0039 J
Benzene	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromodichloromethane	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromoform	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01) UJ	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Bromomethane (Methyl Bromide)	mg/L	ND (0.05)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.02) UJ	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)
Carbon disulfide	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005) UJ	ND (0.005) UJ	R
Carbon tetrachloride	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chlorobenzene	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloroethane	mg/L	ND (0.05)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.02) UJ	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)
Chloroform (Trichloromethane)	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Chloromethane (Methyl Chloride)	mg/L	ND (0.05)	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.02)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)
cis-1,2-Dichloroethene	mg/L	ND (0.025)	ND (0.005) UJ	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
cis-1,3-Dichloropropene	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Dibromochloromethane	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Ethyl Ether	mg/L	0.74 J	0.1	0.1	0.48	0.34 J	0.54 J	0.31	0.17	0.16
Ethylbenzene	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
m&p-Xylene	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Methylene chloride	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
o-Xylene	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Styrene	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Tetrachloroethene	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Toluene	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,2-Dichloroethene	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
trans-1,3-Dichloropropene	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01) UJ	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Trichloroethene	mg/L	ND (0.025)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)
Vinyl acetate	mg/L	-	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	ND (0.05) J	ND (0.01)	ND (0.01)	ND (0.02)	ND (0.02) UJ	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)
Xylene (total)	mg/L	-	-	-	-	-	-	-	-	-
TIC Volatile Organics										
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	-	-	-	-	0.2 BJN	-	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	0.006 JN	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-
Ether A	mg/L	-	-	-	-	-	-	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	0.01 J	-	-
Semi-Volatile Organics										
1,2,4-Trichlorobenzene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-7830-1201-BKP-007*	*020620BH-01*	*021218AC-02*	*030627014-007*	*031202032-004*	*040707061-003*	*041207030-004*	*A5680601*	*A5680603*
Sample Date:		*12/7/2001*	*6/20/2002*	*12/18/2002*	*6/26/2003*	*12/2/2003*	*7/7/2004*	*12/7/2004*	*6/29/2005*	*6/29/2005*
Parameter	*Units*								*Duplicate*	
1,2-Dichlorobenzene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
1,3-Dichlorobenzene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
1,4-Dichlorobenzene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
2,4,5-Trichlorophenol	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
2,4,6-Trichlorophenol	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
2,4-Dichlorophenol	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
2,4-Dimethylphenol	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
2,4-Dinitrophenol	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
2,4-Dinitrotoluene	mg/L	-	ND (0.025) UJ	-	-	-	ND (0.025) UJ	-	ND (0.05)	ND (0.05)
2,6-Dinitrotoluene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
2-Chloronaphthalene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
2-Chlorophenol	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
2-Methylnaphthalene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
2-Methylphenol	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
2-Nitroaniline	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
2-Nitrophenol	mg/L	-	ND (0.025) UJ	-	-	-	ND (0.025)	-	ND (0.05)	ND (0.05)
3,3'-Dichlorobenzidine	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
3-Nitroaniline	mg/L	-	ND (0.010) UJ	-	-	-	ND (0.010)	-	ND (0.02)	ND (0.02)
4,6-Dinitro-2-methylphenol	mg/L	-	ND (0.025) UJ	-	-	-	ND (0.025)	-	ND (0.05)	ND (0.05)
4-Bromophenyl phenyl ether	mg/L	-	ND (0.025)	-	-	-	ND (0.025) UJ	-	ND (0.05)	ND (0.05)
4-Chloro-3-methylphenol	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
4-Chloroaniline	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
4-Chlorophenyl phenyl ether	mg/L	-	ND (0.005) UJ	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
4-Methylphenol	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
4-Nitroaniline	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
4-Nitrophenol	mg/L	-	ND (0.025)	-	-	-	ND (0.025) UJ	-	ND (0.05)	ND (0.05)
Acenaphthene	mg/L	-	ND (0.025) UJ	-	-	-	ND (0.025) UJ	-	ND (0.05)	ND (0.05)
Acenaphthylene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Anthracene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Benzo(a)anthracene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Benzo(a)pyrene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Benzo(b)fluoranthene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Benzo(g,h,i)perylene	mg/L	-	ND (0.005) UJ	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Benzo(k)fluoranthene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Benzoic acid	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
bis(2-Ethylhexyl)phthalate	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Butyl benzylphthalate	mg/L	-	0.0005 J	-	-	-	0.00005 J	-	ND (0.01)	ND (0.01)
Carbazole	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Chrysene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Dibenz(a,h)anthracene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Dibenzofuran	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Diethyl phthalate	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Dimethyl phthalate	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Di-n-butylphthalate	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Di-n-octyl phthalate	mg/L	-	ND (0.005) U	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Fluoranthene	mg/L	-	ND (0.005) UJ	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Fluorene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Hexachlorobenzene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Hexachlorobutadiene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Hexachlorocyclopentadiene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Hexachloroethane	mg/L	-	ND (0.005) UJ	-	-	-	ND (0.005) UJ	-	ND (0.04)	ND (0.04)
Indeno(1,2,3-cd)pyrene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Isophorone	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Naphthalene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Nitrobenzene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
N-Nitrosodi-n-propylamine	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
N-Nitrosodiphenylamine	mg/L	-	ND (0.005) UJ	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Pentachlorophenol	mg/L	-	ND (0.025)	-	-	-	ND (0.025)	-	ND (0.05)	ND (0.05)
Phenanthrene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*	*MW-13B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-7830-1201-BKP-007*	*020620BH-01*	*021218AC-02*	*030627014-007*	*031202032-004*	*040707061-003*	*041207030-004*	*A5680601*	*A5680603*
Sample Date:		*12/7/2001*	*6/20/2002*	*12/18/2002*	*6/26/2003*	*12/2/2003*	*7/7/2004*	*12/7/2004*	*6/29/2005*	*6/29/2005*
Parameter	*Units*								*Duplicate*	
Phenol	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
Pyrene	mg/L	-	ND (0.005)	-	-	-	ND (0.005)	-	ND (0.01)	ND (0.01)
TIC Semi-Volatile Organics										
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	0.001 JN	-	-	-	-	-	0.007 JN	0.007 JN
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	0.011 JN	0.006 JN
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	0.004 JN	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	0.052 JN	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	0.033 JN	0.005 JN
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	0.006 JN	-	-	-	0.009 JN	-	0.014 JN	0.014 JN
Cyclopentasiloxane, decamethyl- A	mg/L	-	0.001 BJN	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	0.002 J	-	-	-	0.007 JN	-	0.010 JN	0.010 JN
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	-	0.005 JN	-	-	-	0.005 JN	-	0.011 JN	0.011 JN
Lidocaine A	mg/L	-	0.006 JN	-	-	-	0.004 JN	-	-	-
Mephobarbitol A	mg/L	-	0.02 JN	-	-	-	0.02 JN	-	0.046 JN	0.045 JN
Mepivacaine A	mg/L	-	-	-	-	-	-	-	0.012 JN	0.013 JN
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	0.012 JN
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	0.005 JN	0.004 JN
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	-	0.02 JN	-	-	-	0.02 JN	-	0.036 JN	0.039 JN
Phenobarbital Di-methyl Derivative A	mg/L	-	0.002 JN	-	-	-	0.003 JN	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	0.005 JN	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-
Talbutal A	mg/L	-	0.01 JN	-	-	-	0.01 JN	-	0.024 JN	0.026 JN
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	0.002 J	-	-	-	0.003 J	-	0.007 J	0.008 J
Unknown B	mg/L	-	0.003 J	-	-	-	0.004 J	-	0.021 J	0.025 J
Unknown C	mg/L	-	0.002 J	-	-	-	0.004 J	-	0.014 J	0.016 J

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample ID:* / *Sample Date:* / *Parameter*	*Units*	*MW-13B OU2 GW-7830-1201-BKP-007 12/7/2001*	*MW-13B OU2 020620BH-01 6/20/2002*	*MW-13B OU2 021218AC-02 12/18/2002*	*MW-13B OU2 030627014-007 6/26/2003*	*MW-13B OU2 031202032-004 12/2/2003*	*MW-13B OU2 040707061-003 7/7/2004*	*MW-13B OU2 041207030-004 12/7/2004*	*MW-13B OU2 A5680601 6/29/2005 Duplicate*	*MW-13B OU2 A5680603 6/29/2005*
Unknown D	mg/L	-	-	-	-	-	0.003 J	-	0.016 J	0.004 J
Unknown E	mg/L	-	-	-	-	-	0.002 J	-	0.006 J	0.018 JN
Unknown F	mg/L	-	-	-	-	-	0.004 J	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	0.010 JN
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-
Metals										
Iron	mg/L	-	6.17	-	-	-	11.9	-	3.87	5.09
Iron (Dissolved)	mg/L	-	1.33	-	-	-	0.273	-	1.36	1.11
Manganese (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-
Gases										
Methane	mg/L	-	-	-	-	-	-	-	-	-
Biological										
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	13000
Benzene Specific Microbial Population	cfu/mL	-	520	-	-	-	5100	-	-	2000
Total Microbial Population	cfu/mL	-	3800	-	-	-	17000	-	-	-
General Chemistry										
Alkalinity, Total (As CaCO3)	mg/L	-	265	-	-	-	270	-	230	228
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	0.13	-	-	-	0.29	-	0.10	0.10
Orthophosphate	mg/L	-	-	-	-	-	-	-	-	-
pH	s.u.	-	-	-	-	-	7.1 J	-	-	-
pH (water)	s.u.	-	-	-	-	-	-	-	-	-
Phosphate, Total	mg/L	-	0.31 J	-	-	-	0.56	-	0.54	0.72
Sulfate	mg/L	-	ND (1)	-	-	-	4.5	-	5.8	9.4
Sulfide	mg/L	-	ND (0.1) UJ	-	-	-	ND (0.1) UJ	-	ND (1.0)	ND (1.0)
Sulfite	mg/L	-	ND (1)	-	-	-	ND (1)	-	ND (2.0)	ND (2.0)
Total Dissolved Solids (TDS)	mg/L	-	512	-	-	-	465	-	477	466
Total Kjeldahl Nitrogen (TKN)	mg/L	-	4.48	-	-	-	8.4	-	6.7	6.4
Total Organic Carbon (TOC)	mg/L	-	11 J	-	-	-	14.7	-	9.8	9.6
Total Suspended Solids (TSS)	mg/L	-	19	-	-	-	76	-	7.0 J	18.0 J
Field Parameters										
Conductivity Field	umhos/cm	-	-	883	4870	-	954	940	-	739
Dissolved Oxygen	mg/L	-	-	-	-	-	2.58	-	-	-
OVA Reading	ppm	-	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-	-	-	-	-	-90	-	-	-
pH Field	s.u.	-	-	7.5	7.6	-	6.82	6.6	-	7.05
Turbidity	ntu	-	-	-	-	-	62.4	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-13B*	*MW-13B*	*MW-13B*	*MW-14B*	*MW-14B*	*MW-14B*	*MW-14B*	*MW-14B*	*MW-15B*	*MW-15B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*A5E26904*	*MW13B*	*MW13B*	*GW-AK-06*	*GW-DJT-013*	*020624AG-05*	*020624AG-06*	*040709032-001*	*GW-AK-05*	*GW-DJT-011*
Sample Date:		*12/15/2005*	*5/18/2006*	*6/26/2006*	*6/24/1998*	*6/2/2000*	*6/24/2002*	*6/24/2002*	*7/9/2004*	*6/24/1998*	*6/2/2000*
Parameter	*Units*							*Duplicate*			
Volatile Organics											
1,1,1-Trichloroethane	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.005)	-	ND (0.0050) UJ	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
1,1,2-Trichloroethane	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
1,1-Dichloroethane	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
1,1-Dichloroethene	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
1,2-Dichloroethane	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
1,2-Dichloropropane	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005) UJ	ND (0.005) UJ	ND (0.005)	ND (0.01)	ND (0.005)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01)	-	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ	ND (0.01)	ND (0.01)
2-Hexanone	mg/L	ND (0.01)	-	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
2-Methylthiophene	mg/L	ND (0.01) UJ	-	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
3-Methylthiophene	mg/L	ND (0.01) UJ	-	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01)	-	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Acetone	mg/L	0.0029 J	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.01)
Benzene	mg/L	ND (0.0005)	ND (0.0010)	ND (0.0010)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.01)	ND (0.005)
Bromodichloromethane	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
Bromoform	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
Bromomethane (Methyl Bromide)	mg/L	ND (0.01) UJ	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)
Carbon disulfide	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005) J	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005) J
Carbon tetrachloride	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
Chlorobenzene	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
Chloroethane	mg/L	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Chloroform (Trichloromethane)	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
Chloromethane (Methyl Chloride)	mg/L	ND (0.01) UJ	-	ND (0.01) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.01)
cis-1,2-Dichloroethene	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
cis-1,3-Dichloropropene	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
Dibromochloromethane	mg/L	ND (0.005) UJ	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
Ethyl Ether	mg/L	0.13 J	0.77 D	0.6	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.010) UJ	0.003 J	0.015
Ethylbenzene	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
m&p-Xylene	mg/L	ND (0.005)	-	ND (0.0050)	-	-	ND (0.005)	ND (0.005)	ND (0.005)	-	-
Methylene chloride	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
o-Xylene	mg/L	ND (0.005)	-	ND (0.0050)	-	-	ND (0.005)	ND (0.005)	ND (0.005)	-	-
Styrene	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
Tetrachloroethene	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
Toluene	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
trans-1,2-Dichloroethene	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
trans-1,3-Dichloropropene	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
Trichloroethene	mg/L	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.01)	ND (0.005)
Vinyl acetate	mg/L	-	-	-	-	ND (0.01)	-	-	-	-	ND (0.01)
Vinyl chloride	mg/L	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.010)	ND (0.01)	ND (0.01)
Xylene (total)	mg/L	-	-	-	ND (0.01)	ND (0.005)	-	-	-	ND (0.01)	ND (0.005)
TIC Volatile Organics											
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	-	-	-	-	-	-	0.2 BJN	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	0.004 JN	-	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ether A	mg/L	0.2 JN	-	-	-	-	-	-	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics											
1,2,4-Trichlorobenzene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-13B*	*MW-13B*	*MW-13B*	*MW-14B*	*MW-14B*	*MW-14B*	*MW-14B*	*MW-14B*	*MW-15B*	*MW-15B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*A5E26904*	*MW13B*	*MW13B*	*GW-AK-06*	*GW-DJT-013*	*020624AG-05*	*020624AG-06*	*040709032-001*	*GW-AK-05*	*GW-DJT-011*
Sample Date:		*12/15/2005*	*5/18/2006*	*6/26/2006*	*6/24/1998*	*6/2/2000*	*6/24/2002*	*6/24/2002*	*7/9/2004*	*6/24/1998*	*6/2/2000*
Parameter	*Units*							*Duplicate*			
1,2-Dichlorobenzene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	ND (0.36) UJ	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	ND (0.36)	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	ND (0.14)	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	ND (0.36)	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	ND (0.36)	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	ND (0.36)	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	ND (0.36)	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Carbazole	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	ND (0.32)	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	ND (0.36)	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample ID:* / *Sample Date:* / *Parameter*	*Units*	*MW-13B OU2 A5E26904 12/15/2005*	*MW-13B OU2 MW13B 5/18/2006*	*MW-13B OU2 MW13B 6/26/2006*	*MW-14B OU2 GW-AK-06 6/24/1998*	*MW-14B OU2 GW-DJT-013 6/2/2000*	*MW-14B OU2 020624AG-05 6/24/2002*	*MW-14B OU2 020624AG-06 6/24/2002 Duplicate*	*MW-14B OU2 040709032-001 7/9/2004*	*MW-15B OU2 GW-AK-05 6/24/1998*	*MW-15B OU2 GW-DJT-011 6/2/2000*
Phenol	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	ND (0.071)	-	-	-	-	-	-	-
TIC Semi-Volatile Organics											
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-	-	-
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	-	-	-	-	-	-	-	-	-	-
Lidocaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Talbutal A	mg/L	-	-	-	-	-	-	-	-	-	-
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown C	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location: / *Location:* / *Sample ID:* / *Sample Date:* / *Parameter*	*Units*	*MW-13B OU2 A5E26904 12/15/2005*	*MW-13B OU2 MW13B 5/18/2006*	*MW-13B OU2 MW13B 6/26/2006*	*MW-14B OU2 GW-AK-06 6/24/1998*	*MW-14B OU2 GW-DJT-013 6/2/2000*	*MW-14B OU2 020624AG-05 6/24/2002*	*MW-14B OU2 020624AG-06 6/24/2002 Duplicate*	*MW-14B OU2 040709032-001 7/9/2004*	*MW-15B OU2 GW-AK-05 6/24/1998*	*MW-15B OU2 GW-DJT-011 6/2/2000*
Unknown D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Iron	mg/L	-	-	-	ND (12.6)	7.67	11.5	12.1	9.38	ND (12)	18.7
Iron (Dissolved)	mg/L	-	15.8	5.6 J	ND (8.91)	3.15	7.1	7.66	0.119	ND (7.74)	8.48
Manganese (Dissolved)	mg/L	-	1.06	1.05 J	-	-	-	-	-	-	-
Gases											
Methane	mg/L	-	1.6 D	2.4	-	-	-	-	-	-	-
Biological											
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
General Chemistry											
Alkalinity, Total (As CaCO3)	mg/L	-	224	179	230	240	215	210	240	210	230
Dissolved Organic Carbon (DOC)	mg/L	-	16.7	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	-	ND (0.050)	ND (0.050)	0.06	ND (0.02)	0.04	0.02	0.12	0.295	0.33
Orthophosphate	mg/L	-	-	-	0.26	0.3 J	-	-	-	0.29	0.57 J
pH	s.u.	-	-	-	-	-	-	-	6.2	-	-
pH (water)	s.u.	-	-	-	6.8	6.9	-	-	-	6.8	6.8
Phosphate, Total	mg/L	-	-	-	-	-	0.33	0.44	0.26	-	-
Sulfate	mg/L	-	9.7	10.4	34.7	32.2	15	14.5	25.8	16	21.9
Sulfide	mg/L	-	-	-	-	-	ND (0.1) UJ	ND (0.1) UJ	ND (0.1)	-	-
Sulfite	mg/L	-	-	-	-	-	ND (1) UJ	ND (1) UJ	ND (1)	-	-
Total Dissolved Solids (TDS)	mg/L	-	-	-	353	341	330	322	330	310	310
Total Kjeldahl Nitrogen (TKN)	mg/L	-	-	-	ND (1.96)	1.12	ND (1)	ND (1)	1.1	ND (1)	3.08
Total Organic Carbon (TOC)	mg/L	-	-	-	ND (4.1)	5.1	20	5.3	3.2	ND (4.7)	9
Total Suspended Solids (TSS)	mg/L	-	-	-	16	19	25.5	25	35.5	25	42
Field Parameters											
Conductivity Field	umhos/cm	800	0.708	0.75	-	-	-	-	705	-	-
Dissolved Oxygen	mg/L	-	7.34	1	-	-	-	-	2.69	-	-
OVA Reading	ppm	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-	-109	-130	-	-	-	-	-44	-	-
pH Field	s.u.	7.4	6.81	8.07	-	-	-	-	6.57	-	-
Turbidity	ntu	-	41.2	14	-	-	-	-	45.3	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-15B*	*MW-15B*	*MW-15B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*020625AH-06*	*040702001-003*	*MW15B*	*GW-AK-04*	*GW-DJT-012*	*020621AR-04*	*020624AG-01*	*040702001-002*	*050310043-003*	*A5217201*
Sample Date:		*6/25/2002*	*7/1/2004*	*6/26/2006*	*6/23/1998*	*6/2/2000*	*6/21/2002*	*6/24/2002*	*7/1/2004*	*3/10/2005*	*3/10/2005*
Parameter	*Units*										
Volatile Organics											
1,1,1-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
1,1,2,2-Tetrachloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050) UJ	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
1,1,2-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
1,1-Dichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
1,1-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
1,2-Dichloroethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
1,2-Dichloropropane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ	ND (0.2)	ND (0.2)	ND (0.1) UJ	-	ND (0.1) UJ	ND (0.2)	-
2-Hexanone	mg/L	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.2)	ND (0.2)	ND (0.1)	-	ND (0.1)	ND (0.2)	-
2-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	-	ND (0.2)	ND (0.2)	ND (0.1)	-	ND (0.1)	-	-
3-Methylthiophene	mg/L	ND (0.01)	ND (0.01)	-	ND (0.2)	ND (0.2)	ND (0.1)	-	ND (0.1)	ND (0.2)	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.2)	ND (0.2)	ND (0.1)	-	ND (0.1)	ND (0.2)	-
Acetone	mg/L	ND (0.01)	ND (0.01) UJ	ND (0.01)	ND (0.2)	ND (0.2)	ND (0.1)	-	ND (0.1) UJ	ND (0.2)	-
Benzene	mg/L	ND (0.005)	ND (0.005)	ND (0.0010)	ND (0.2)	ND (0.2)	ND (0.1)	-	ND (0.05)	ND (0.1)	-
Bromodichloromethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
Bromoform	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.2)	ND (0.2)	ND (0.1)	-	ND (0.1)	ND (0.2)	-
Carbon disulfide	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1) J	ND (0.05)	-	ND (0.05)	ND (0.1)	-
Carbon tetrachloride	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
Chlorobenzene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
Chloroethane	mg/L	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.2)	ND (0.2)	ND (0.1)	-	ND (0.1)	ND (0.2)	-
Chloroform (Trichloromethane)	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
Chloromethane (Methyl Chloride)	mg/L	ND (0.01)	ND (0.01)	ND (0.0050)	ND (0.2)	ND (0.2)	ND (0.1)	-	ND (0.05)	ND (0.1)	-
cis-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.1)	ND (0.2)	-
cis-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
Dibromochloromethane	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
Ethyl Ether	mg/L	ND (0.01)	0.003 J	0.0082	4	4.7	2.7	-	5.1 J	1.90	-
Ethylbenzene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
m&p-Xylene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	-	-	ND (0.05)	-	ND (0.05)	ND (0.1)	-
Methylene chloride	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
o-Xylene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	-	-	ND (0.05)	-	ND (0.05)	ND (0.1)	-
Styrene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
Tetrachloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
Toluene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	0.085	-	ND (0.05)	ND (0.1)	-
trans-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
trans-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
Trichloroethene	mg/L	ND (0.005)	ND (0.005)	ND (0.0050)	ND (0.2)	ND (0.1)	ND (0.05)	-	ND (0.05)	ND (0.1)	-
Vinyl acetate	mg/L	-	-	-	-	ND (0.2)	-	-	-	-	-
Vinyl chloride	mg/L	ND (0.01)	ND (0.010)	ND (0.01)	ND (0.2)	ND (0.2)	ND (0.1)	-	ND (0.1)	ND (0.2)	-
Xylene (total)	mg/L	-	-	-	ND (0.2)	ND (0.1)	-	-	-	-	-
TIC Volatile Organics											
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	0.08 BJN	-	-	-	-	-	0.5 BJN	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	0.1 JN	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	0.1 JN	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics											
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-15B*	*MW-15B*	*MW-15B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*020625AH-06*	*040702001-003*	*MW15B*	*GW-AK-04*	*GW-DJT-012*	*020621AR-04*	*020624AG-01*	*040702001-002*	*050310043-003*	*A5217201*
Sample Date:		*6/25/2002*	*7/1/2004*	*6/26/2006*	*6/23/1998*	*6/2/2000*	*6/21/2002*	*6/24/2002*	*7/1/2004*	*3/10/2005*	*3/10/2005*
Parameter	*Units*										
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-15B*	*MW-15B*	*MW-15B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*020625AH-06*	*040702001-003*	*MW15B*	*GW-AK-04*	*GW-DJT-012*	*020621AR-04*	*020624AG-01*	*040702001-002*	*050310043-003*	*A5217201*
Sample Date:		*6/25/2002*	*7/1/2004*	*6/26/2006*	*6/23/1998*	*6/2/2000*	*6/21/2002*	*6/24/2002*	*7/1/2004*	*3/10/2005*	*3/10/2005*
Parameter	*Units*										
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
TIC Semi-Volatile Organics											
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-	-	-
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	-	-	-	-	-	-	-	-	-	-
Lidocaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Talbutal A	mg/L	-	-	-	-	-	-	-	-	-	-
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown C	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-15B*	*MW-15B*	*MW-15B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*020625AH-06*	*040702001-003*	*MW15B*	*GW-AK-04*	*GW-DJT-012*	*020621AR-04*	*020624AG-01*	*040702001-002*	*050310043-003*	*A5217201*
Sample Date:		*6/25/2002*	*7/1/2004*	*6/26/2006*	*6/23/1998*	*6/2/2000*	*6/21/2002*	*6/24/2002*	*7/1/2004*	*3/10/2005*	*3/10/2005*
Parameter	*Units*										
Unknown D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Iron	mg/L	7.19	10.1	-	54.5	39	-	33.6	35.1	-	17.7
Iron (Dissolved)	mg/L	1.23	0.028 B	-	ND (3.09)	25.5	-	30.8	0.0234 B	-	5.8
Manganese (Dissolved)	mg/L	-	-	-	-	-	-	-	-	-	-
Gases											
Methane	mg/L	-	-	-	-	-	-	-	-	-	-
Biological											
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	170
											840
General Chemistry											
Alkalinity, Total (As CaCO3)	mg/L	205	210	-	415	470	-	370	390	-	241
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	0.99	1.93	-	ND (0.02)	ND (0.02)	-	ND (0.02)	ND (0.02)	-	ND (0.05)
Orthophosphate	mg/L	-	-	-	0.81	0.79 J	-	-	-	-	-
pH	s.u.	-	6.7 J	-	-	-	-	-	6.3 J	-	-
pH (water)	s.u.	-	-	-	6.6	6.7	-	-	-	-	-
Phosphate, Total	mg/L	0.42	0.45	-	-	-	-	1.7	0.77	-	1.4
Sulfate	mg/L	22.6	17	-	5.1	ND (2)	-	ND (1)	1.7	-	39.2
Sulfide	mg/L	ND (0.1) UJ	ND (0.1)	-	-	-	-	ND (0.1) UJ	ND (0.1) UJ	-	ND (1.0)
Sulfite	mg/L	ND (1) UJ	ND (1) UJ	-	-	-	-	ND (1) UJ	ND (1) UJ	-	ND (2.0)
Total Dissolved Solids (TDS)	mg/L	228	305	-	703	710	-	638	605	-	515
Total Kjeldahl Nitrogen (TKN)	mg/L	1.4	4.8	-	9.52	11.2	-	13.7	9.5	-	5.8
Total Organic Carbon (TOC)	mg/L	22	4.4	-	37	38	-	28	26	-	16.9
Total Suspended Solids (TSS)	mg/L	22.5	53.5	-	61	84	-	72	75	-	37.0
Field Parameters											
Conductivity Field	umhos/cm	-	645	0.585	-	-	-	-	1020	960	960
Dissolved Oxygen	mg/L	-	3.88	1.95	-	-	-	-	1.92	9.42	9.42
OVA Reading	ppm	-	-	-	-	-	-	-	-	0	0
Oxidation reduction potential	millivolts	-	-87	-46	-	-	-	-	-80	-61	-61
pH Field	s.u.	-	6.68	8.77	-	-	-	-	6.47	5.23	5.23
Turbidity	ntu	-	17.7	8	-	-	-	-	31.9	1.1	1.1

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*A5687302*	*A5E26905*	*MW16B*	*MW16B*	*GW-AK-03*	*GW-DJT-010*	*020625AH-03*	*040709032-002*	*050310043-001*	*050310043-004*
Sample Date:		*6/30/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*	*6/23/1998*	*6/2/2000*	*6/25/2002*	*7/9/2004*	*3/10/2005*	*3/10/2005*
Parameter	*Units*										*Duplicate*
Volatile Organics											
1,1,1-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050) UJ	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
1,1,2-Trichloroethane	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
1,1-Dichloroethane	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
1,1-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
1,2-Dichloroethane	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
1,2-Dichloropropane	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.01)	ND (0.01)	-	ND (0.01) UJ	ND (0.01)	ND (0.05)	ND (0.01) UJ	ND (0.1) UJ	ND (0.05)	ND (0.1)
2-Hexanone	mg/L	ND (0.01)	ND (0.01)	-	ND (0.01) UJ	ND (0.01)	ND (0.05)	ND (0.01)	ND (0.1)	ND (0.05)	ND (0.1)
2-Methylthiophene	mg/L	ND (0.01)	ND (0.01) UJ	-	-	ND (0.01)	ND (0.05)	ND (0.01)	ND (0.1)	-	-
3-Methylthiophene	mg/L	ND (0.01)	ND (0.01) UJ	-	-	ND (0.01)	ND (0.05)	ND (0.01)	ND (0.1)	ND (0.05)	ND (0.1)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.01)	ND (0.01)	-	ND (0.01) UJ	ND (0.01)	ND (0.05)	ND (0.01)	ND (0.1)	ND (0.05)	ND (0.1)
Acetone	mg/L	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.01)	ND (0.1) UJ	ND (0.05)	ND (0.1)
Benzene	mg/L	ND (0.005)	ND (0.0005)	ND (0.0010)	ND (0.0010)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Bromodichloromethane	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Bromoform	mg/L	ND (0.005)	ND (0.005) UJ	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Bromomethane (Methyl Bromide)	mg/L	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.01)	ND (0.1)	ND (0.05)	ND (0.1)
Carbon disulfide	mg/L	ND (0.005) UJ	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025) J	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Carbon tetrachloride	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Chlorobenzene	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Chloroethane	mg/L	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.01)	ND (0.1) UJ	ND (0.05)	ND (0.1)
Chloroform (Trichloromethane)	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	0.013 J	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Chloromethane (Methyl Chloride)	mg/L	ND (0.01)	ND (0.01)	-	ND (0.01) UJ	ND (0.01)	ND (0.05)	ND (0.01)	ND (0.1)	ND (0.05)	ND (0.1)
cis-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
cis-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Dibromochloromethane	mg/L	ND (0.005)	ND (0.005) UJ	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Ethyl Ether	mg/L	3.1	1.9 J	3.1 D	2.7 J	0.071	0.48	0.74	3.3 J	1.90	1.80
Ethylbenzene	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
m&p-Xylene	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	-	-	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Methylene chloride	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
o-Xylene	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	-	-	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Styrene	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Tetrachloroethene	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Toluene	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
trans-1,2-Dichloroethene	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
trans-1,3-Dichloropropene	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Trichloroethene	mg/L	ND (0.005)	ND (0.005)	-	ND (0.0050)	ND (0.01)	ND (0.025)	ND (0.005)	ND (0.05)	ND (0.025)	ND (0.05)
Vinyl acetate	mg/L	-	-	-	-	-	ND (0.05)	-	-	-	-
Vinyl chloride	mg/L	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	ND (0.05)	ND (0.01)	ND (0.1)	ND (0.05)	ND (0.1)
Xylene (total)	mg/L	-	-	-	-	ND (0.01)	ND (0.025)	-	-	-	-
TIC Volatile Organics											
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	-	-	-	-	-	-	0.5 BJN	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ether A	mg/L	-	1.7 JN	-	-	-	-	-	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics											
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*A5687302*	*A5E26905*	*MW16B*	*MW16B*	*GW-AK-03*	*GW-DJT-010*	*020625AH-03*	*040709032-002*	*050310043-001*	*050310043-004*
Sample Date:		*6/30/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*	*6/23/1998*	*6/2/2000*	*6/25/2002*	*7/9/2004*	*3/10/2005*	*3/10/2005*
Parameter	*Units*										*Duplicate*
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*A5687302*	*A5E26905*	*MW16B*	*MW16B*	*GW-AK-03*	*GW-DJT-010*	*020625AH-03*	*040709032-002*	*050310043-001*	*050310043-004*	
Sample Date:		*6/30/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*	*6/23/1998*	*6/2/2000*	*6/25/2002*	*7/9/2004*	*3/10/2005*	*3/10/2005*	
Parameter	*Units*										*Duplicate*	
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-	
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	
TIC Semi-Volatile Organics												
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-	-	
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-	-	
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-	-	
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-	-	-	
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-	
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-	-	
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-	
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-	-	
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-	
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-	
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-	
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-	
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-	-	
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-	-	
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-	
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-	-	
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-	-	-	
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-	
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-	
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-	
Hexobarital A	mg/L	-	-	-	-	-	-	-	-	-	-	
Lidocaine A	mg/L	-	-	-	-	-	-	-	-	-	-	
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-	
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-	-	-	
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-	-	
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-	
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-	
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-	
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-	-	
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Sulfur A	mg/L	-	-	-	-	-	-	-	-	-	-	
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	
Talbutal A	mg/L	-	-	-	-	-	-	-	-	-	-	
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown B	mg/L	-	-	-	-	-	-	-	-	-	-	
Unknown C	mg/L	-	-	-	-	-	-	-	-	-	-	

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-16B*	*MW-16B*	*MW-16B*	*MW-16B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*A5687302*	*A5E26905*	*MW16B*	*MW16B*	*GW-AK-03*	*GW-DJT-010*	*020625AH-03*	*040709032-002*	*050310043-001*	*050310043-004*
Sample Date:		*6/30/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*	*6/23/1998*	*6/2/2000*	*6/25/2002*	*7/9/2004*	*3/10/2005*	*3/10/2005*
Parameter	*Units*										*Duplicate*
Unknown D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Iron	mg/L	33.6	-	-	-	29.8	27.7	25.8	21.8	-	-
Iron (Dissolved)	mg/L	8.41	-	36.5	5.81 J	ND (3.58)	7.12	15.4	0.715	-	-
Manganese (Dissolved)	mg/L	-	-	1.03	0.813 J	-	-	-	-	-	-
Gases											
Methane	mg/L	-	-	5.1 D	4.9	-	-	-	-	-	-
Biological											
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Benzene Specific Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-
General Chemistry											
Alkalinity, Total (As CaCO3)	mg/L	173	-	276	273	230	290	235	315	-	-
Dissolved Organic Carbon (DOC)	mg/L	-	-	16.8	-	-	-	-	-	-	-
Nitrate (as N)	mg/L	ND (0.050)	-	0.064	ND (0.050)	0.02	ND (0.02)	ND (0.02)	ND (0.02)	-	-
Orthophosphate	mg/L	-	-	-	-	0.33	0.44 J	-	-	-	-
pH	s.u.	-	-	-	-	-	-	-	6.5	-	-
pH (water)	s.u.	-	-	-	-	6.7	6.8	-	-	-	-
Phosphate, Total	mg/L	2.2	-	-	-	-	-	0.79	0.49	-	-
Sulfate	mg/L	ND (2.0)	-	ND (4.0)	ND (2.0)	31	6.7	48.3	9.8	-	-
Sulfide	mg/L	ND (1.0)	-	-	-	-	-	ND (0.1) UJ	ND (0.1)	-	-
Sulfite	mg/L	ND (2.0)	-	-	-	-	-	ND (1) UJ	ND (1)	-	-
Total Dissolved Solids (TDS)	mg/L	514	-	-	-	375	455	402	420	-	-
Total Kjeldahl Nitrogen (TKN)	mg/L	7.4	-	-	-	ND (1.96)	5.6	2.8	4.2	-	-
Total Organic Carbon (TOC)	mg/L	25.2	-	-	-	ND (5.2)	13	13	17.9	-	-
Total Suspended Solids (TSS)	mg/L	75.0	-	-	-	60	98	78	62.5	-	-
Field Parameters											
Conductivity Field	umhos/cm	950	900	0.951	0.96	-	-	-	833	697	-
Dissolved Oxygen	mg/L	-	-	3.61	1.7	-	-	-	3.04	12.16	-
OVA Reading	ppm	-	-	-	-	-	-	-	-	0	-
Oxidation reduction potential	millivolts	-	-	-134	-151	-	-	-	-52	-42	-
pH Field	s.u.	6.97	7.7	6.79	7.83	-	-	-	6.71	5.21	-
Turbidity	ntu	-	-	28	14	-	-	-	48	33.1	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-18B*	*MW-18B*	*MW-18B*	*MW-18B*	*MW-18B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*A5217202*	*A5217202FD*	*A5687303*	*A5E26906*	*MW17B*	*MW17B*	*GW-AK-01*	*GW-BKP-031*	*020625AH-04*	*040709001-004*	*MW18B*
Sample Date:		*3/10/2005*	*3/10/2005*	*6/30/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*	*6/23/1998*	*6/7/2000*	*6/25/2002*	*7/8/2004*	*6/26/2006*
			Duplicate									
Parameter	*Units*											
Volatile Organics												
1,1,1-Trichloroethane	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
1,1,2,2-Tetrachloroethane	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1) UJ	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050) UJ
1,1,2-Trichloroethane	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
1,1-Dichloroethane	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
1,1-Dichloroethene	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
1,2-Dichloroethane	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
1,2-Dichloropropane	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
2-Butanone (Methyl Ethyl Ketone)	mg/L	-	-	ND (0.01)	ND (0.01)	-	ND (0.2) UJ	ND (0.01)	ND (0.01)	ND (0.01) UJ	ND (0.01) UJ	ND (0.01) UJ
2-Hexanone	mg/L	-	-	ND (0.01)	ND (0.01)	-	ND (0.2) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ
2-Methylthiophene	mg/L	-	-	ND (0.01)	ND (0.01) UJ	-	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-
3-Methylthiophene	mg/L	-	-	ND (0.01)	ND (0.01) UJ	-	-	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	-	-	ND (0.01)	ND (0.01)	-	ND (0.2) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ
Acetone	mg/L	-	-	ND (0.01)	ND (0.01)	-	ND (0.2)	ND (0.01)	ND (0.01) J	ND (0.01) UJ	ND (0.01) UJ	ND (0.01)
Benzene	mg/L	-	-	ND (0.005)	ND (0.0005)	ND (0.0010)	ND (0.02)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0010)
Bromodichloromethane	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
Bromoform	mg/L	-	-	ND (0.005)	ND (0.005) UJ	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
Bromomethane (Methyl Bromide)	mg/L	-	-	ND (0.01)	ND (0.01)	-	ND (0.2)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Carbon disulfide	mg/L	-	-	ND (0.005) UJ	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005) J	ND (0.005)	ND (0.005)	ND (0.0050)
Carbon tetrachloride	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
Chlorobenzene	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
Chloroethane	mg/L	-	-	ND (0.01)	ND (0.01)	-	ND (0.2)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)
Chloroform (Trichloromethane)	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
Chloromethane (Methyl Chloride)	mg/L	-	-	ND (0.01)	ND (0.01)	-	ND (0.2) UJ	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01) UJ
cis-1,2-Dichloroethene	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005) UJ	ND (0.005)	ND (0.0050)
cis-1,3-Dichloropropene	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
Dibromochloromethane	mg/L	-	-	ND (0.005)	ND (0.005) UJ	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
Ethyl Ether	mg/L	-	-	1.9	1.6 J	2 D	1.4	0.27	0.34	ND (0.01)	0.014 J	0.36
Ethylbenzene	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
m&p-Xylene	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	-	-	ND (0.005)	ND (0.005)	ND (0.0050)
Methylene chloride	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1) U	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
o-Xylene	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	-	-	ND (0.005)	ND (0.005)	ND (0.0050)
Styrene	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
Tetrachloroethene	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
Toluene	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
trans-1,2-Dichloroethene	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
trans-1,3-Dichloropropene	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
Trichloroethene	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
Vinyl acetate	mg/L	-	-	ND (0.005)	ND (0.005)	-	ND (0.1)	ND (0.01)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.0050)
Vinyl chloride	mg/L	-	-	-	-	-	-	-	ND (0.01)	-	-	-
Xylene (total)	mg/L	-	-	ND (0.01)	ND (0.01)	-	ND (0.2)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.010)	ND (0.01)
				-	-	-	-	ND (0.01)	ND (0.005)	-	-	-
TIC Volatile Organics												
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	-	-	-	-	-	-	-	-	0.1 BJN	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ether A	mg/L	-	-	-	1.6 JN	-	-	-	-	-	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics												
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-18B*	*MW-18B*	*MW-18B*	*MW-18B*	*MW-18B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*A5217202*	*A5217202FD*	*A5687303*	*A5E26906*	*MW17B*	*MW17B*	*GW-AK-01*	*GW-BKP-031*	*020625AH-04*	*040709001-004*	*MW18B*
Sample Date:		*3/10/2005*	*3/10/2005*	*6/30/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*	*6/23/1998*	*6/7/2000*	*6/25/2002*	*7/8/2004*	*6/26/2006*
Parameter	*Units*		*Duplicate*									
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-18B*	*MW-18B*	*MW-18B*	*MW-18B*	*MW-18B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*A5217202*	*A5217202FD*	*A5687303*	*A5E26906*	*MW17B*	*MW17B*	*GW-AK-01*	*GW-BKP-031*	*020625AH-04*	*040709001-004*	*MW18B*
Sample Date:		*3/10/2005*	*3/10/2005*	*6/30/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*	*6/23/1998*	*6/7/2000*	*6/25/2002*	*7/8/2004*	*6/26/2006*
Parameter	*Units*		*Duplicate*									
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-	-
TIC Semi-Volatile Organics												
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-	-	-	-
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Lidocaine A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-	-
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-	-
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Talbutal A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown B	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown C	mg/L	-	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-17B*	*MW-18B*	*MW-18B*	*MW-18B*	*MW-18B*	*MW-18B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*A5217202*	*A5217202FD*	*A5687303*	*A5E26906*	*MW17B*	*MW17B*	*GW-AK-01*	*GW-BKP-031*	*020625AH-04*	*040709001-004*	*MW18B*
Sample Date:		*3/10/2005*	*3/10/2005*	*6/30/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*	*6/23/1998*	*6/7/2000*	*6/25/2002*	*7/8/2004*	*6/26/2006*
Parameter	*Units*		*Duplicate*									
Unknown D	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown E	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown F	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-	-	-
Metals												
Iron	mg/L	21.7	21.7	18.2	-	-	-	ND (19.6)	14.2	6.14	21.8	-
Iron (Dissolved)	mg/L	6.14	5.81	7.39	-	20.8	11.7 J	ND (3.65)	10.5	0.241	0.135	-
Manganese (Dissolved)	mg/L	-	-	-	-	0.759	0.687 J	-	-	-	-	-
Gases												
Methane	mg/L	-	-	-	-	0.29 D	1.1	-	-	-	-	-
Biological												
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	-	-	-	-	-
Benzene Specific Microbial Population	cfu/mL	75	110	-	-	-	-	760	375	350	180	-
Total Microbial Population	cfu/mL	120	75	-	-	-	-	19200	6100	4800	15000	-
General Chemistry												
Alkalinity, Total (As CaCO3)	mg/L	266	228	204	-	192	190	185	190	165	215	-
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	11.8	-	-	-	-	-	-
Nitrate (as N)	mg/L	ND (0.05)	ND (0.05)	ND (0.050)	-	ND (0.050)	ND (0.050)	0.08	0.33	0.81	0.64	-
Orthophosphate	mg/L	-	-	-	-	-	-	0.21	0.27 J	-	-	-
pH	s.u.	-	-	-	-	-	-	-	-	-	7.0 J	-
pH (water)	s.u.	-	-	-	-	-	-	6.8	6.8	-	-	-
Phosphate, Total	mg/L	1.6	1.5	1.6	-	-	-	-	-	0.2	0.13	-
Sulfate	mg/L	5.3	5.8	12.8	-	ND (4.0)	ND (2.0)	71	51.7	70.9	83.5	-
Sulfide	mg/L	ND (1.0)	ND (1.0)	ND (1.0)	-	-	-	-	-	ND (0.1) UJ	ND (0.1)	-
Sulfite	mg/L	ND (2.0)	ND (2.0)	ND (2.0)	-	-	-	-	-	ND (1) UJ	ND (1) UJ	-
Total Dissolved Solids (TDS)	mg/L	392	400	394	-	-	-	425	342	350	475	-
Total Kjeldahl Nitrogen (TKN)	mg/L	3.9	3.5	3.5	-	-	-	ND (1.96)	4.42	ND (1)	2.5	-
Total Organic Carbon (TOC)	mg/L	8.8	9.3	16.2	-	-	-	ND (5.3)	7.1	4	4.3	-
Total Suspended Solids (TSS)	mg/L	46.0	41.0	55.0	-	-	-	44	59	23	24	-
Field Parameters												
Conductivity Field	umhos/cm	697	-	908	600	0.653	0.722	-	-	-	993	0.848
Dissolved Oxygen	mg/L	12.16	-	-	-	2.97	1.11	-	-	-	3.72	1.29
OVA Reading	ppm	0	-	-	-	-	-	-	-	-	-	-
Oxidation reduction potential	millivolts	-42	-	-	-	-117	-123	-	-	-	-57	-120
pH Field	s.u.	5.21	-	7.3	7.1	6.85	9.98	-	-	-	6.6	8.71
Turbidity	ntu	33.1	-	-	-	15	44	-	-	-	102	7

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-AK-02*	*GW-BKP-030*	*020625AH-01*	*040709001-003*	*050310043-002*	*A5217203*	*A5680604*	*A5E26907*	*MW19B*	*MW19B*
Sample Date:		*6/23/1998*	*6/7/2000*	*6/25/2002*	*7/8/2004*	*3/10/2005*	*3/10/2005*	*6/29/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*
Parameter	*Units*										
Volatile Organics											
1,1,1-Trichloroethane	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
1,1,2,2-Tetrachloroethane	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
1,1,2-Trichloroethane	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
1,1-Dichloroethane	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
1,1-Dichloroethene	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
1,2-Dichloroethane	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
1,2-Dichloropropane	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
2-Butanone (Methyl Ethyl Ketone)	mg/L	ND (0.02)	ND (0.01)	ND (0.01) UJ	ND (0.01) UJ	ND (0.01)	-	ND (0.01)	ND (0.01)	-	ND (0.02)
2-Hexanone	mg/L	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	-	ND (0.02)
2-Methylthiophene	mg/L	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01)	-	-	ND (0.01)	ND (0.01) UJ	-	-
3-Methylthiophene	mg/L	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01) UJ	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/L	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	-	ND (0.02)
Acetone	mg/L	ND (0.02)	ND (0.01) J	ND (0.01)	ND (0.01) UJ	ND (0.005)	-	ND (0.01)	ND (0.01) UJ	-	ND (0.02)
Benzene	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.0005)	ND (0.0010)	ND (0.0020)
Bromodichloromethane	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Bromoform	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005) UJ	-	ND (0.01)
Bromomethane (Methyl Bromide)	mg/L	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01) UJ	-	ND (0.02)
Carbon disulfide	mg/L	ND (0.02)	ND (0.005) J	ND (0.005)	ND (0.005)	ND (0.005)	-	R	ND (0.005)	-	ND (0.01)
Carbon tetrachloride	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Chlorobenzene	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Chloroethane	mg/L	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01)	-	ND (0.02)
Chloroform (Trichloromethane)	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Chloromethane (Methyl Chloride)	mg/L	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.01)	ND (0.01)	-	ND (0.01)	ND (0.01) UJ	-	ND (0.02) UJ
cis-1,2-Dichloroethene	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
cis-1,3-Dichloropropene	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Dibromochloromethane	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005) UJ	-	ND (0.01)
Ethyl Ether	mg/L	0.39	0.08	0.32	0.130 J	0.14	-	0.013	0.28 J	0.081 D	0.12
Ethylbenzene	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
m&p-Xylene	mg/L	-	-	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Methylene chloride	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01) U
o-Xylene	mg/L	-	-	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Styrene	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Tetrachloroethene	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Toluene	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
trans-1,2-Dichloroethene	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
trans-1,3-Dichloropropene	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005)	-	ND (0.01)
Trichloroethene	mg/L	ND (0.02)	ND (0.005)	ND (0.005)	ND (0.005)	ND (0.005)	-	ND (0.005)	ND (0.005) UJ	-	ND (0.01)
Vinyl acetate	mg/L	-	ND (0.01)	-	-	-	-	-	-	-	-
Vinyl chloride	mg/L	ND (0.02)	ND (0.01)	ND (0.01)	ND (0.010)	ND (0.01)	-	ND (0.01)	ND (0.01)	-	ND (0.02)
Xylene (total)	mg/L	ND (0.02)	ND (0.005)	-	-	-	-	-	-	-	-
TIC Volatile Organics											
1,2-Dichlorotetrafluoroethane (CFC 114) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Carbon dioxide A	mg/L	-	-	-	0.2 BJN	-	-	-	-	-	-
Chlorodifluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (CFC-12) A	mg/L	-	-	-	-	-	-	-	-	-	-
Dichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethoxymethane A	mg/L	-	-	-	-	-	-	-	0.003 JN	-	-
Diisopropyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Ether A	mg/L	-	-	-	-	-	-	-	0.28 JN	-	-
Ethoxymethyl benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexane A	mg/L	-	-	-	-	-	-	-	-	-	-
Silanol, trimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur dioxides A	mg/L	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown silane A	mg/L	-	-	-	-	-	-	-	-	-	-
Semi-Volatile Organics											
1,2,4-Trichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

Sample Location:		*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-AK-02*	*GW-BKP-030*	*020625AH-01*	*040709001-003*	*050310043-002*	*A5217203*	*A5680604*	*A5E26907*	*MW19B*	*MW19B*
Sample Date:		*6/23/1998*	*6/7/2000*	*6/25/2002*	*7/8/2004*	*3/10/2005*	*3/10/2005*	*6/29/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*
Parameter	*Units*										
1,2-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
3,3'-Dichlorobenzidine	mg/L	-	-	-	-	-	-	-	-	-	-
3-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4,6-Dinitro-2-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Bromophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/L	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/L	-	-	-	-	-	-	-	-	-	-
4-Nitrophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/L	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/L	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic acid	mg/L	-	-	-	-	-	-	-	-	-	-
Benzyl Alcohol	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethoxy)methane	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Chloroethyl)ether	mg/L	-	-	-	-	-	-	-	-	-	-
bis(2-Ethylhexyl)phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl benzylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/L	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/L	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Dimethyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-butylphthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Di-n-octyl phthalate	mg/L	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/L	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachlorocyclopentadiene	mg/L	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/L	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/L	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/L	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodi-n-propylamine	mg/L	-	-	-	-	-	-	-	-	-	-
N-Nitrosodiphenylamine	mg/L	-	-	-	-	-	-	-	-	-	-
Pentachlorophenol	mg/L	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/L	-	-	-	-	-	-	-	-	-	-

TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

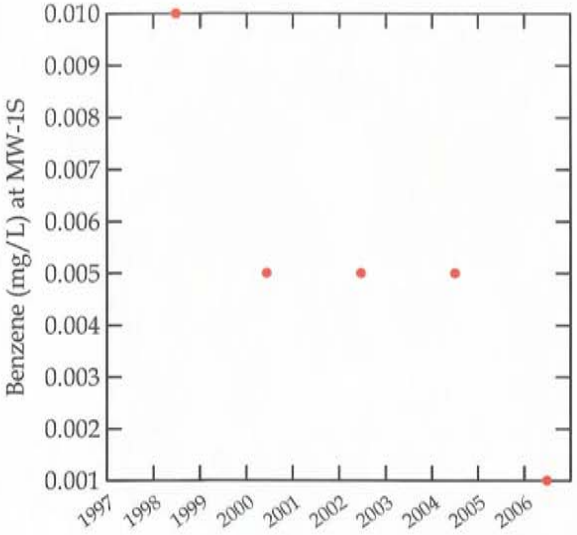
Sample Location: / *Location:* / *Sample ID:* / *Sample Date:* / *Parameter*	*Units*	*MW-19B OU2 GW-AK-02 6/23/1998*	*MW-19B OU2 GW-BKP-030 6/7/2000*	*MW-19B OU2 020625AH-01 6/25/2002*	*MW-19B OU2 040709001-003 7/8/2004*	*MW-19B OU2 050310043-002 3/10/2005*	*MW-19B OU2 A5217203 3/10/2005*	*MW-19B OU2 A5680604 6/29/2005*	*MW-19B OU2 A5E26907 12/14/2005*	*MW-19B OU2 MW19B 5/18/2006*	*MW-19B OU2 MW19B 6/26/2006*
Phenol	mg/L	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/L	-	-	-	-	-	-	-	-	-	-
TIC Semi-Volatile Organics											
1 (2H)-Naphthalenone, 3,4-dih A	mg/L	-	-	-	-	-	-	-	-	-	-
1,1'-Biphenyl (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
1-Phenyl-1-cyclopropanecarbo	mg/L	-	-	-	-	-	-	-	-	-	-
2,4,6(1H,3H,5H)-Pyrimidinetr A	mg/L	-	-	-	-	-	-	-	-	-	-
3H-Pyrazol-3-one, 1,2-dihydr A	mg/L	-	-	-	-	-	-	-	-	-	-
4-Piperidine Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione A	mg/L	-	-	-	-	-	-	-	-	-	-
9-Octadecenoic Acid (Z)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Aminopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
Aniline (ACN) (8CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine, 2,6-Dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,4-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,5-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenamine,2,6-dimethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene, 1,1'-Oxybis (9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzene,(Ethoxymethyl)-(9C) A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N,N-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzenemethanamine, N-methyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Benzoic Acid, 4-Chloro-(9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Biphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester octadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Butyl ester, hexadecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers A	mg/L	-	-	-	-	-	-	-	-	-	-
Chloromethylbenzene isomers B	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopentasiloxane, decamethyl- A	mg/L	-	-	-	-	-	-	-	-	-	-
Cyclopropane Carbonitrile, 2 A	mg/L	-	-	-	-	-	-	-	-	-	-
Diethyltoluamide A	mg/L	-	-	-	-	-	-	-	-	-	-
Diphenyl ether A	mg/L	-	-	-	-	-	-	-	-	-	-
Dodecanoic acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethane, 1,2-Bis(2-Chloroetho) A	mg/L	-	-	-	-	-	-	-	-	-	-
Ethoxymethyl Benzene A	mg/L	-	-	-	-	-	-	-	-	-	-
Hexobarital A	mg/L	-	-	-	-	-	-	-	-	-	-
Lidocaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mephobarbitol A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine A	mg/L	-	-	-	-	-	-	-	-	-	-
Mepivacaine hydrochloride A	mg/L	-	-	-	-	-	-	-	-	-	-
Methyl Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Noramidopyrine A	mg/L	-	-	-	-	-	-	-	-	-	-
O-Hydroxybiphenyl A	mg/L	-	-	-	-	-	-	-	-	-	-
o-Toluidine A	mg/L	-	-	-	-	-	-	-	-	-	-
Pentazocine A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenobarbital Di-methyl Derivative A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, (1,1-Dimethylethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-Bis(1,1-Dimethyl) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 2,4-bis(1-dimethyl A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(1,1,3,3-Tetrameth	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4-(2,2,3,3,-Tetrameth) A	mg/L	-	-	-	-	-	-	-	-	-	-
Phenol, 4,4'-Butylidenebis(2) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, mold. (S8) A	mg/L	-	-	-	-	-	-	-	-	-	-
Sulfur, Mol. (S8) (8CI9CI) A	mg/L	-	-	-	-	-	-	-	-	-	-
Talbutal A	mg/L	-	-	-	-	-	-	-	-	-	-
Tetramethylbutylphenol A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown C	mg/L	-	-	-	-	-	-	-	-	-	-

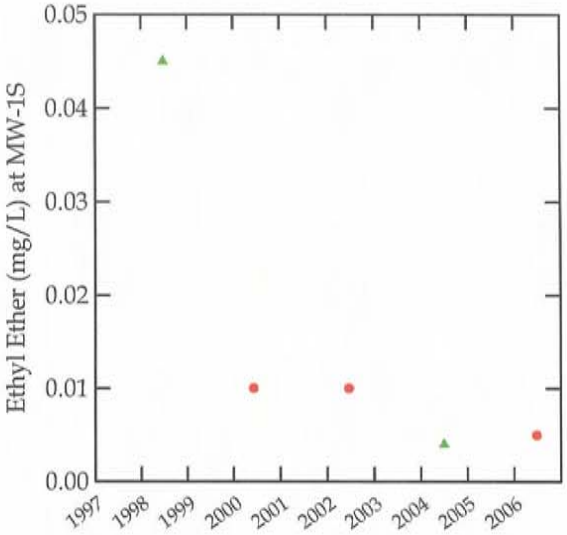
TABLE A.1
GROUNDWATER
ANALYTICAL RESULTS
OU2 - STERLING SITE 3, EAST GREENBUSH, NEW YORK

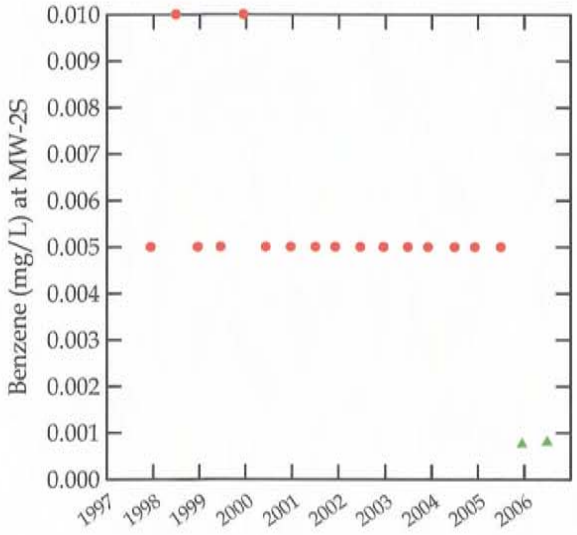
Sample Location:		*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*	*MW-19B*
Location:		*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*	*OU2*
Sample ID:		*GW-AK-02*	*GW-BKP-030*	*020625AH-01*	*040709001-003*	*050310043-002*	*A5217203*	*A5680604*	*A5E26907*	*MW19B*	*MW19B*
Sample Date:		*6/23/1998*	*6/7/2000*	*6/25/2002*	*7/8/2004*	*3/10/2005*	*3/10/2005*	*6/29/2005*	*12/14/2005*	*5/18/2006*	*6/26/2006*
Parameter	***Units***										
Unknown D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown G	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown H	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown I	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown J	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown K	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown L	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Alkane A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Amide A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic C	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic D	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic E	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Aromatic F	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Carboxylic Acid B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Nitrogen Compound 1	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Oxygenated Compound B	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Substituted Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Sulfur Compound A	mg/L	-	-	-	-	-	-	-	-	-	-
Unknown Thiophene A	mg/L	-	-	-	-	-	-	-	-	-	-
Warfarin A	mg/L	-	-	-	-	-	-	-	-	-	-
Metals											
Iron	mg/L	ND (19.9)	12.4	16.6	16.8	-	16	13.4	-	-	-
Iron (Dissolved)	mg/L	ND (3.44)	5.72	13.3	0.45	-	6.56	1.99	-	8.95	0.957 J
Manganese (Dissolved)	mg/L	-	-	-	-	-	-	-	-	0.474	0.387 J
Gases											
Methane	mg/L	-	-	-	-	-	-	-	-	0.01	0.025
Biological											
Aerobic Total Microbial Population	cfu/mL	-	-	-	-	-	-	580	-	-	-
Benzene Specific Microbial Population	cfu/mL	1680	340	420	NO GROW	-	30	20	-	-	-
Total Microbial Population	cfu/mL	30400	3800	4200	30	-	120	-	-	-	-
General Chemistry											
Alkalinity, Total (As CaCO3)	mg/L	200	205	270	220	-	166	164	-	164	192
Dissolved Organic Carbon (DOC)	mg/L	-	-	-	-	-	-	-	-	4.1	-
Nitrate (as N)	mg/L	0.04	ND (0.02)	1.3	ND (0.02)	-	ND (0.05)	ND (0.050)	-	0.12	0.10
Orthophosphate	mg/L	0.21	0.29 J	-	-	-	-	-	-	-	-
pH	s.u.	-	-	-	6.7 J	-	-	-	-	-	-
pH (water)	s.u.	6.8	6.9	-	-	-	-	-	-	-	-
Phosphate, Total	mg/L	-	-	0.39	0.32	-	0.88	0.69	-	-	-
Sulfate	mg/L	59	60.6	45.1	73.8	-	104	83.2	-	116	92.9
Sulfide	mg/L	-	-	ND (0.1) UJ	ND (0.1)	-	ND (1.0)	ND (1.0)	-	-	-
Sulfite	mg/L	-	-	ND (1) UJ	ND (1) UJ	-	ND (2.0)	ND (2.0)	-	-	-
Total Dissolved Solids (TDS)	mg/L	378	302	370	345	-	420	345	-	-	-
Total Kjeldahl Nitrogen (TKN)	mg/L	ND (3.36)	2.52	3.36	3.1	-	1.8	1.7	-	-	-
Total Organic Carbon (TOC)	mg/L	ND (5.6)	2.7	6.3	2.3	-	ND (1.0)	2.4	-	-	-
Total Suspended Solids (TSS)	mg/L	28	43	32	31	-	31.0	23.0	-	-	-
Field Parameters											
Conductivity Field	umhos/cm	-	-	-	778	754	754	651	700	0.68	0.723
Dissolved Oxygen	mg/L	-	-	-	3.71	10.56	10.56	-	-	5.53	1.13
OVA Reading	ppm	-	-	-	-	0	0	-	-	-	-
Oxidation reduction potential	millivolts	-	-	-	-35	-11	-11	-	-	-68	-111
pH Field	s.u.	-	-	-	6.56	5.27	5.27	7.28	7.8	6.95	9.94
Turbidity	ntu	-	-	-	159	32.7	32.7	-	-	86	71

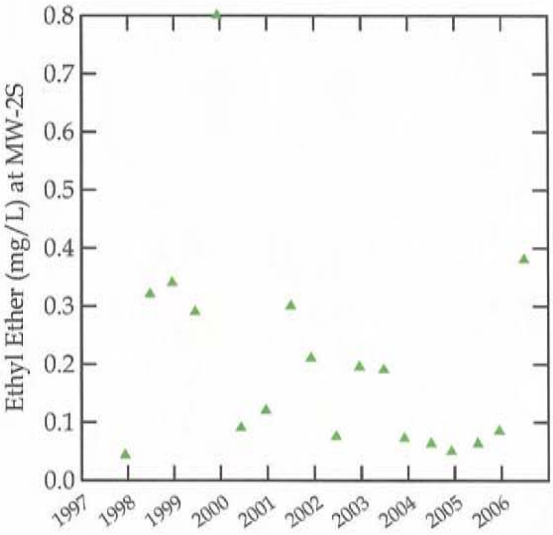
APPENDIX B

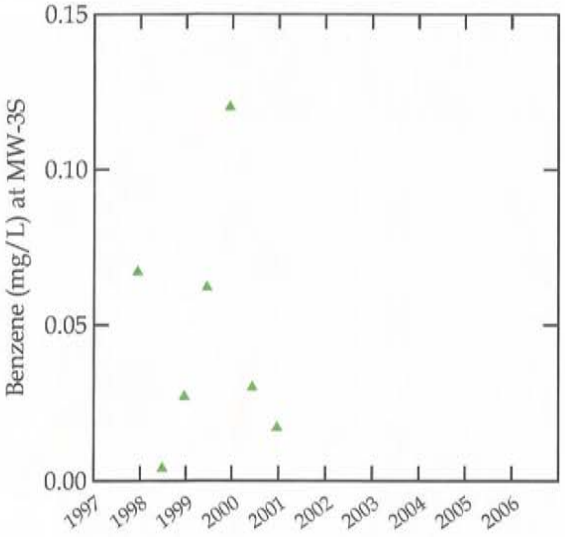
NATURAL ATTENUATION DATA - TREND ANALYSES

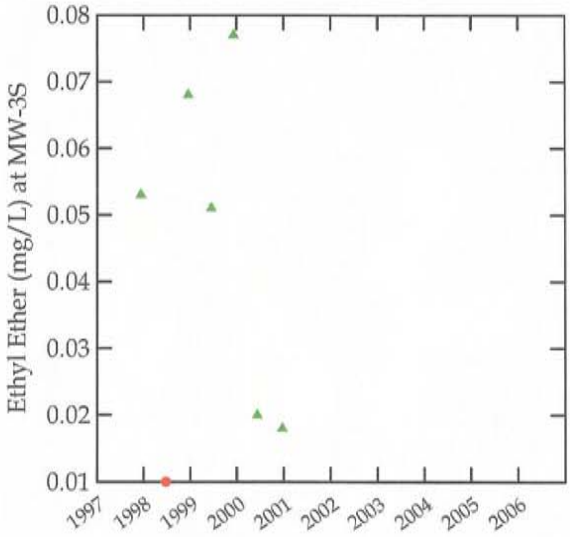












Notes:
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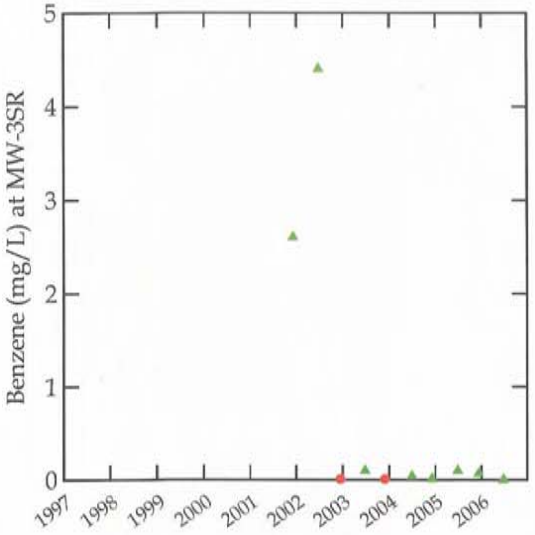
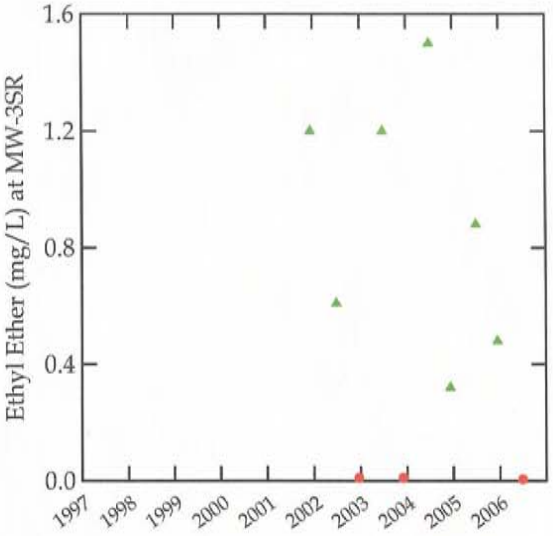
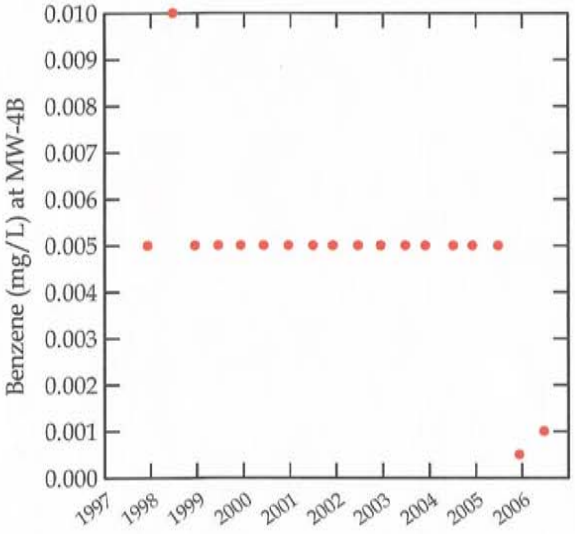
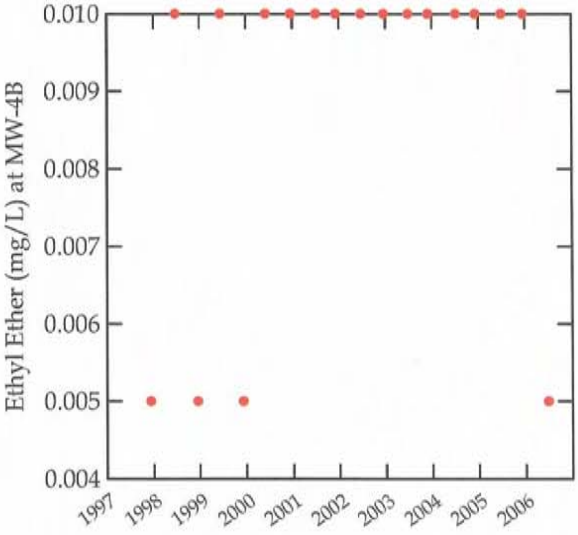
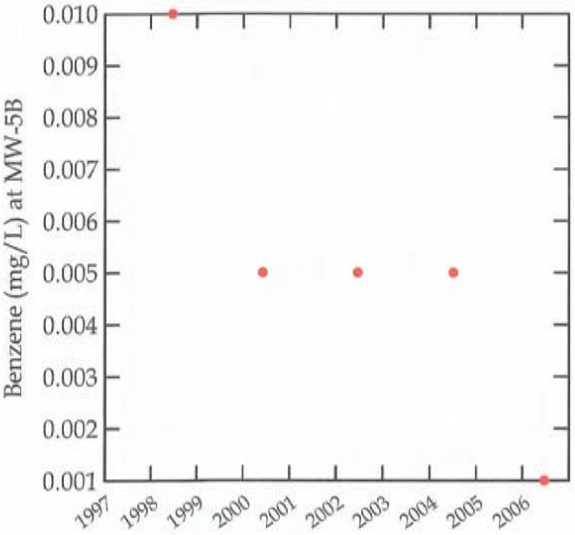
Concentration vs. Time Plots
Groundwater Natural Attenuation Monitoring
Site 3, New York

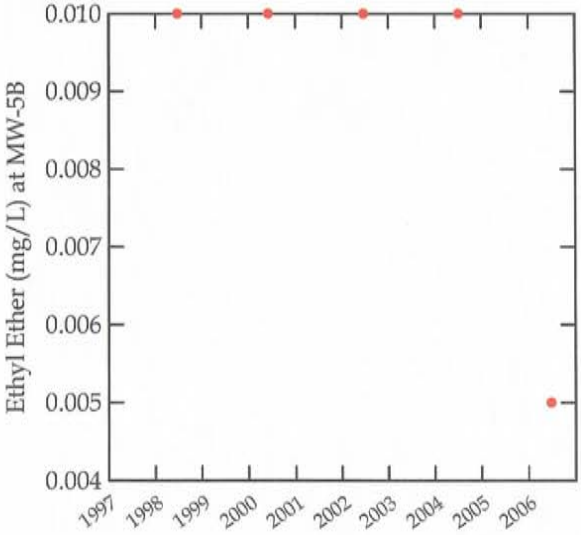












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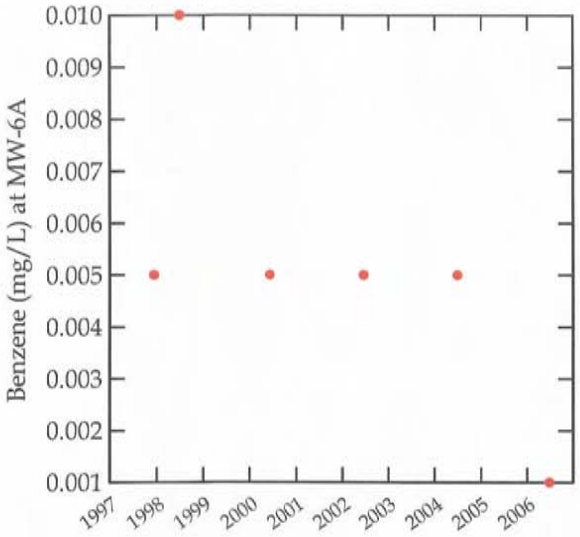

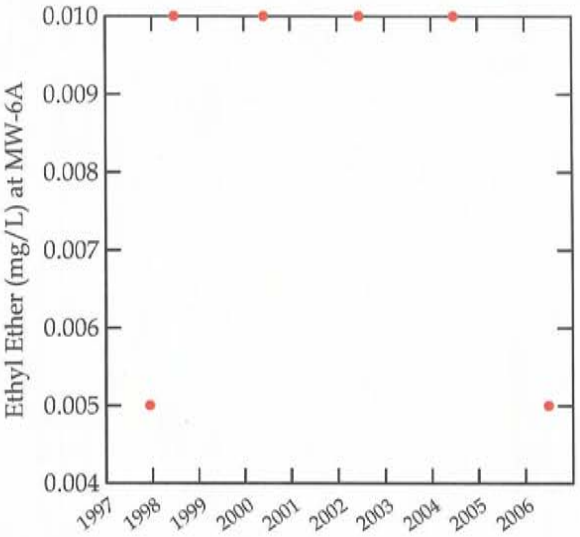

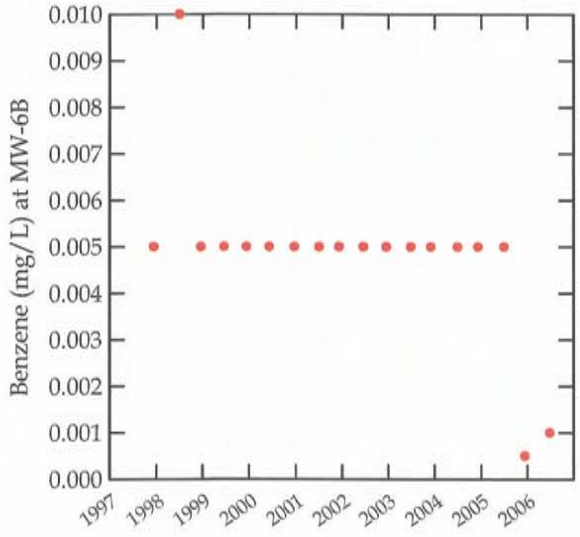

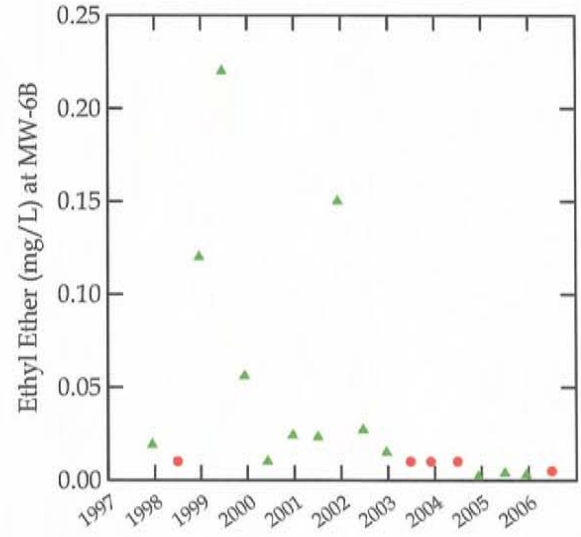

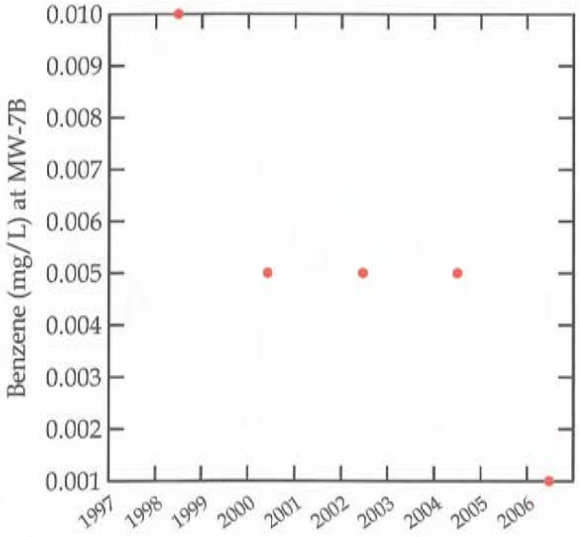

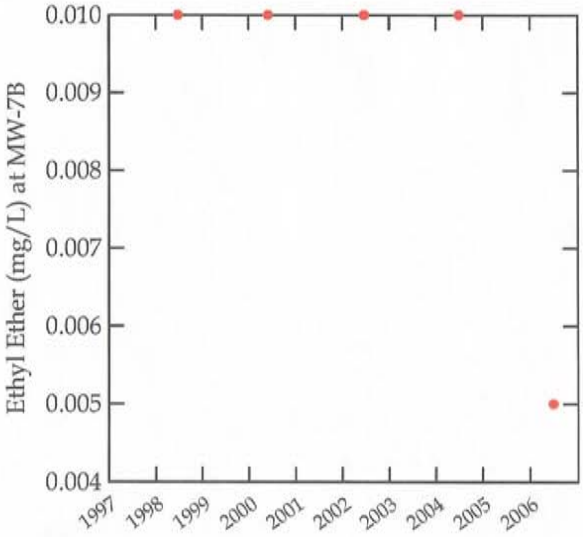

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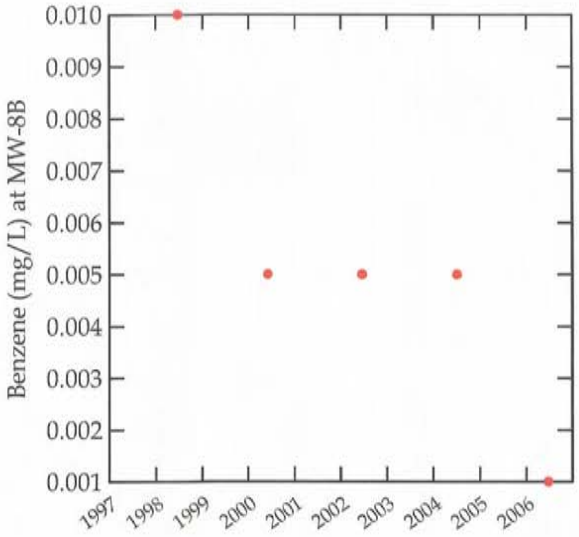

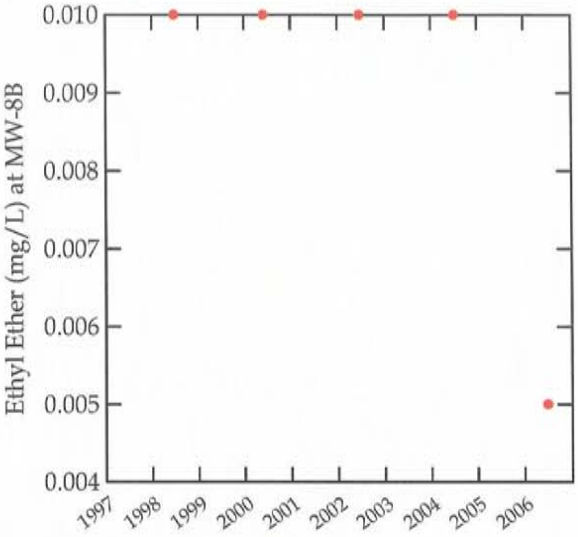

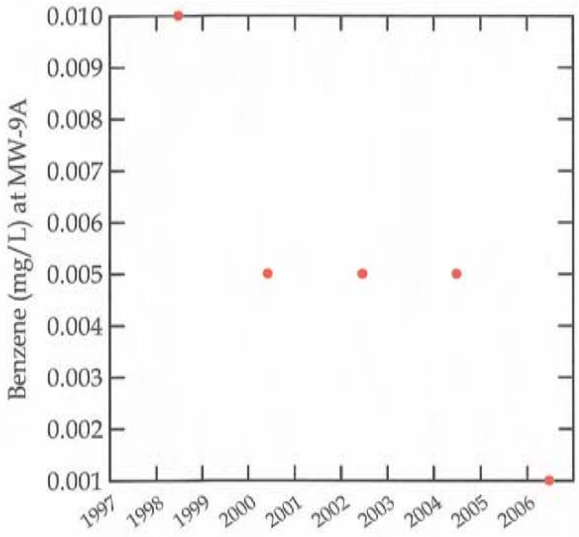

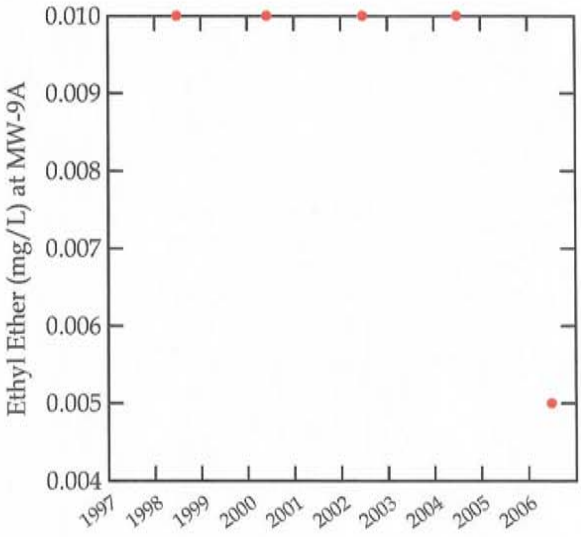

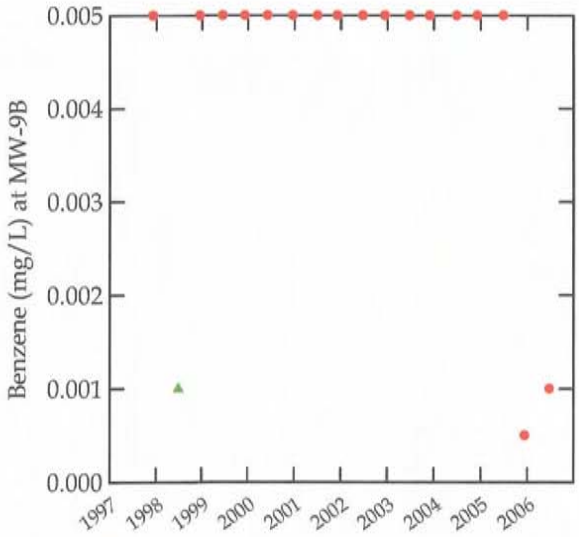

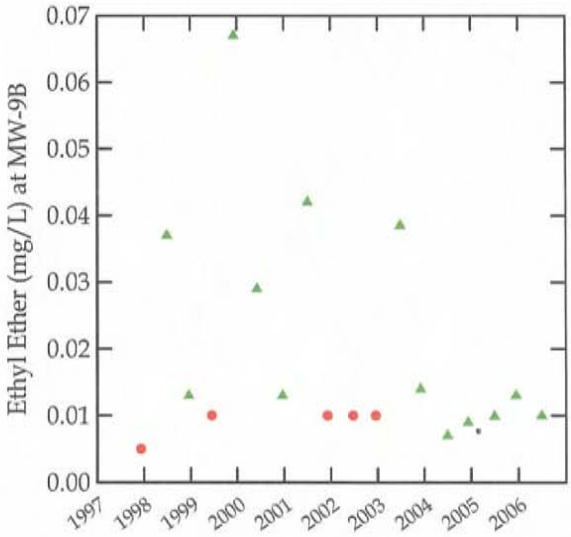

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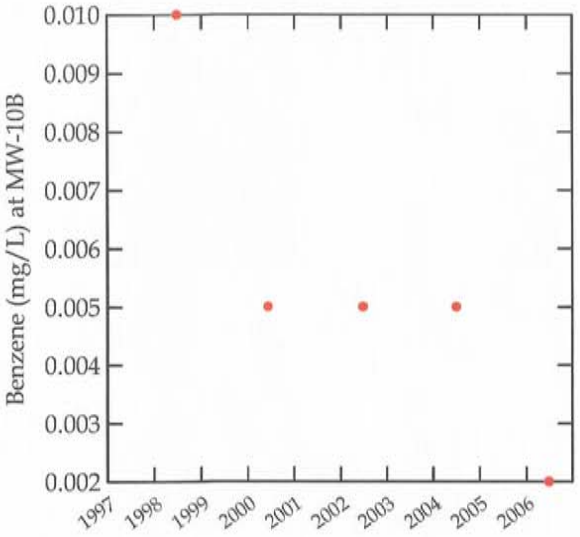

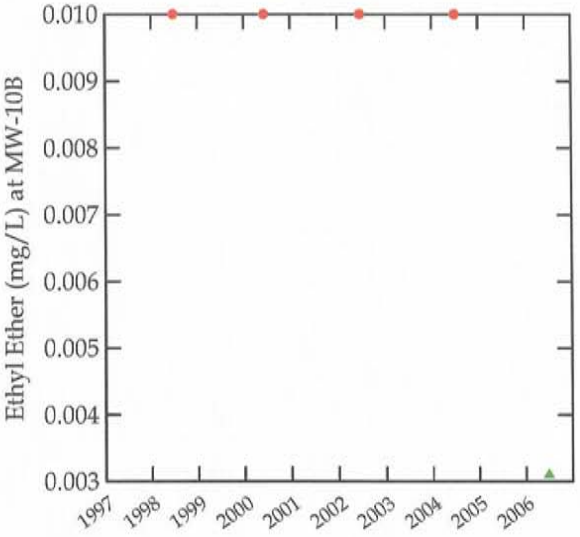

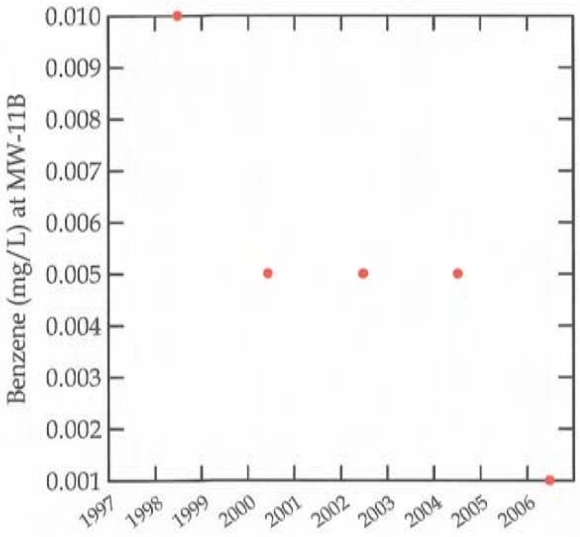

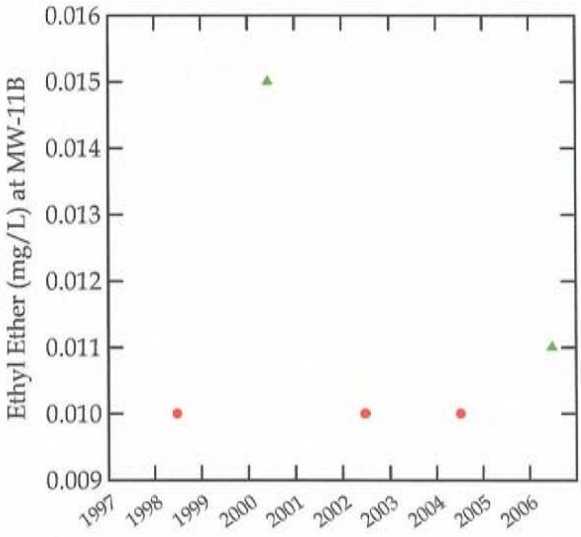

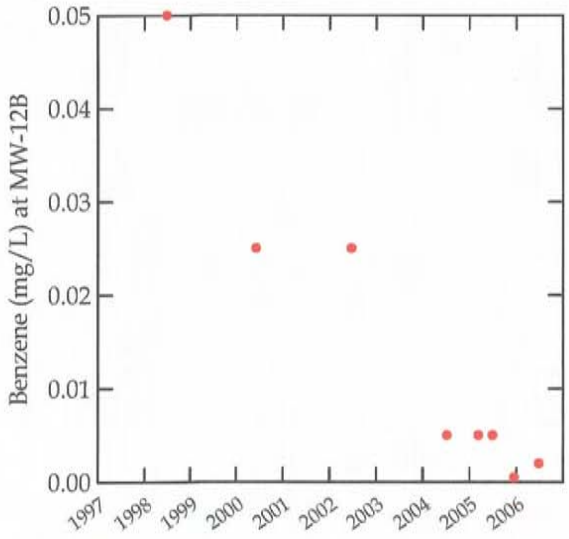

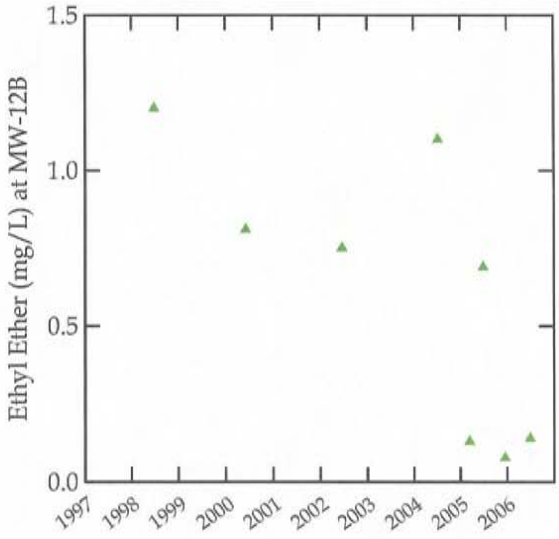

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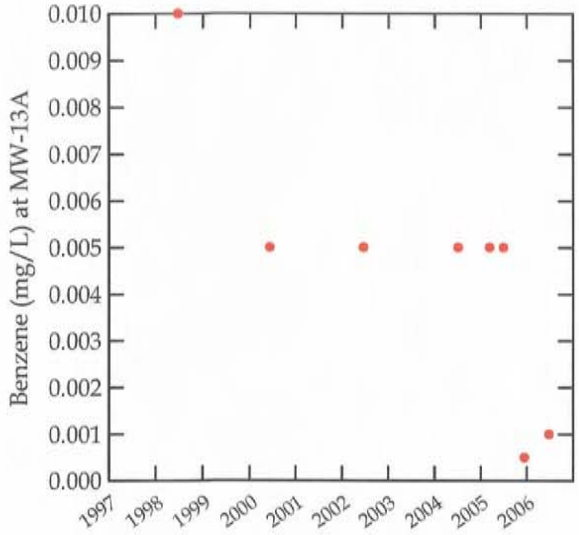

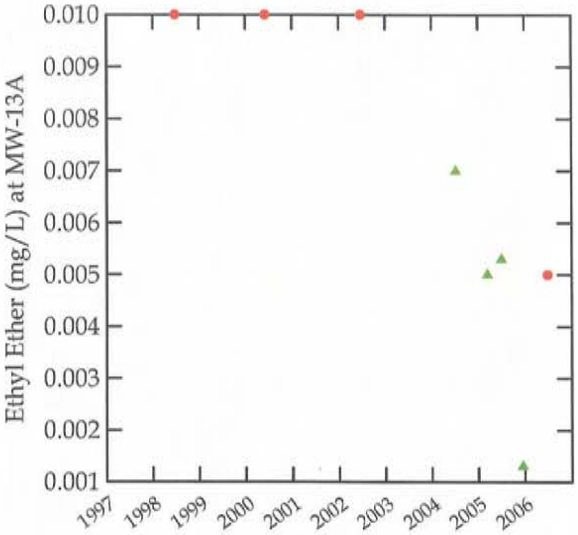

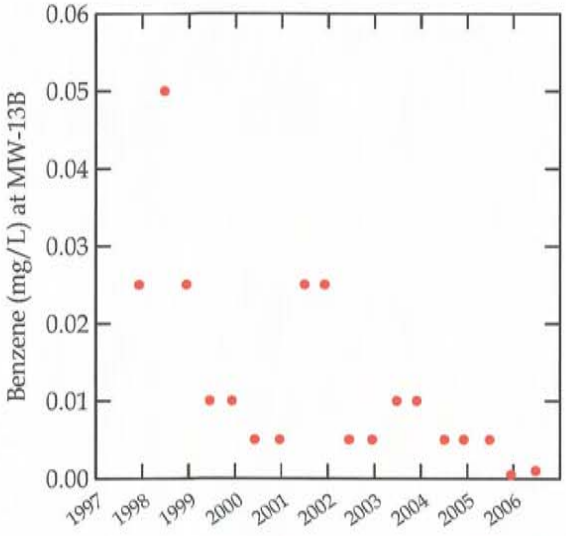

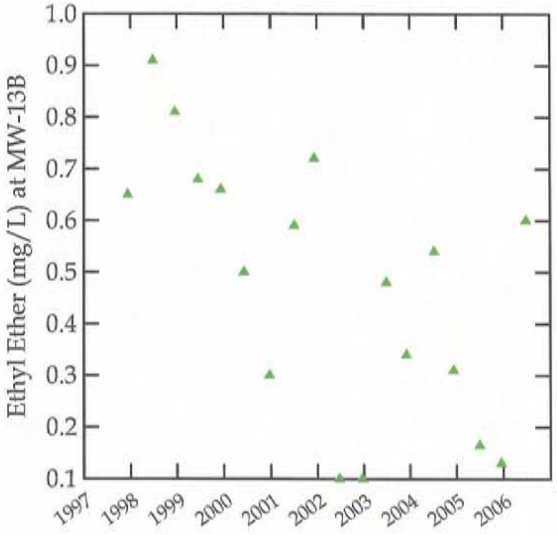

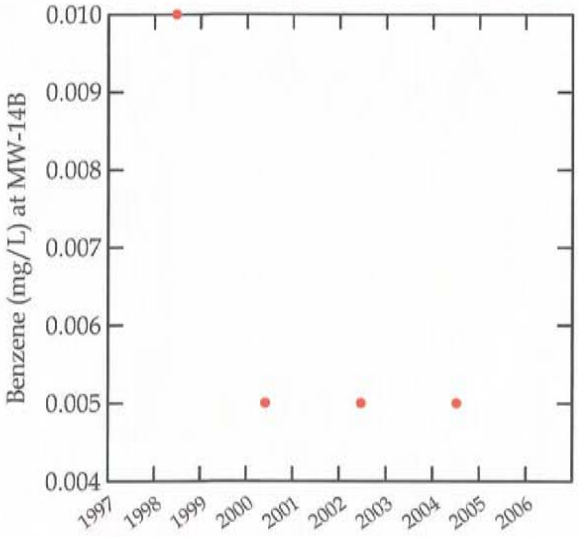

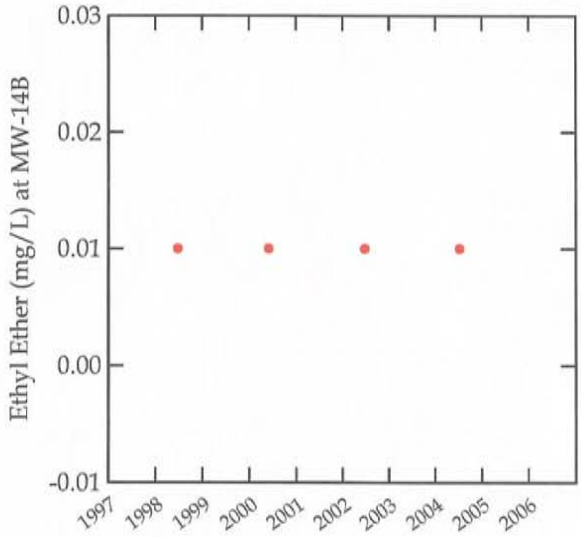

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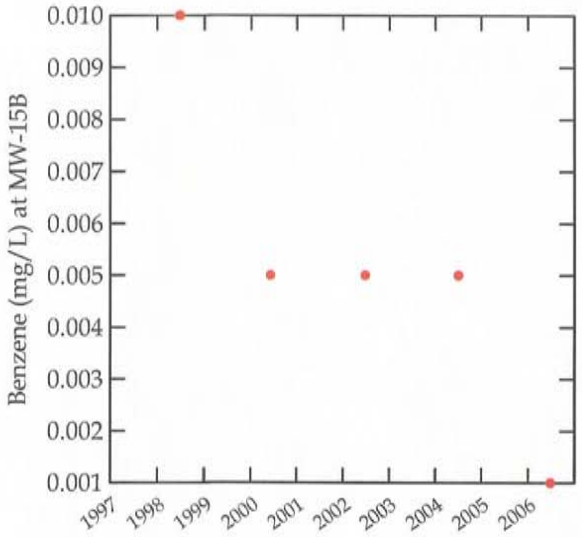

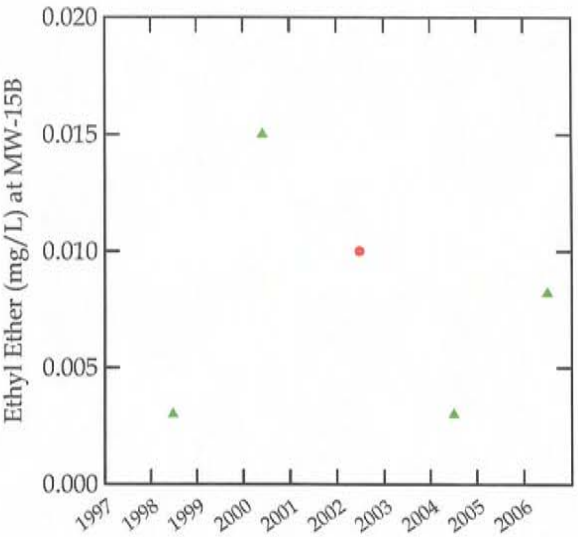

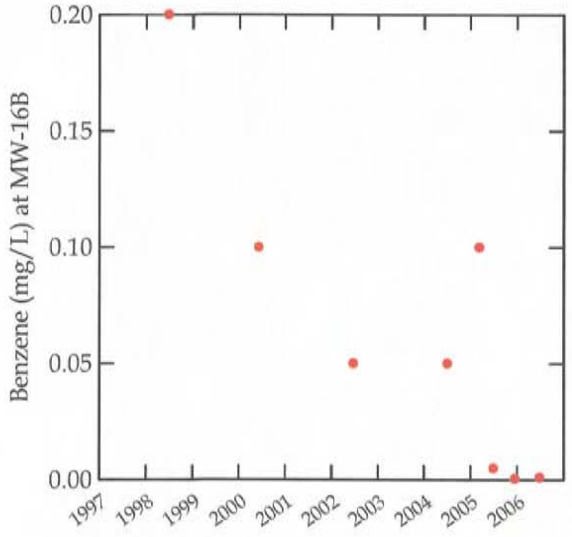

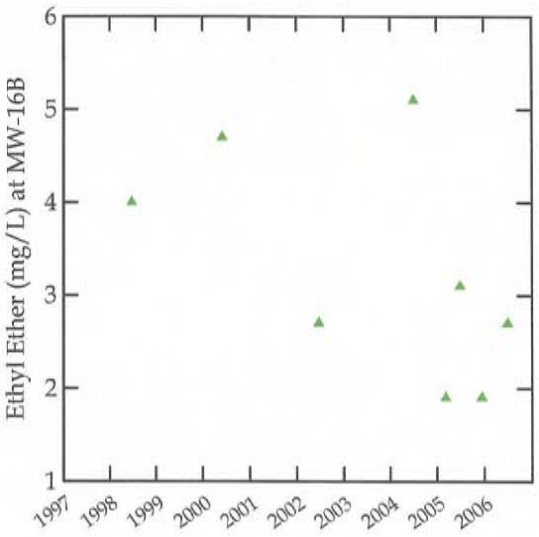

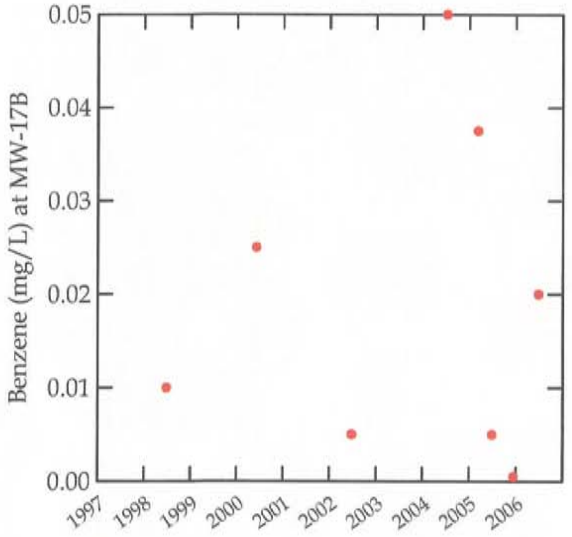

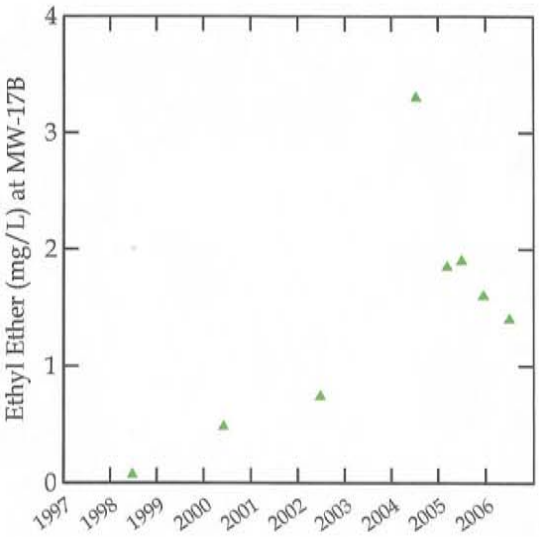

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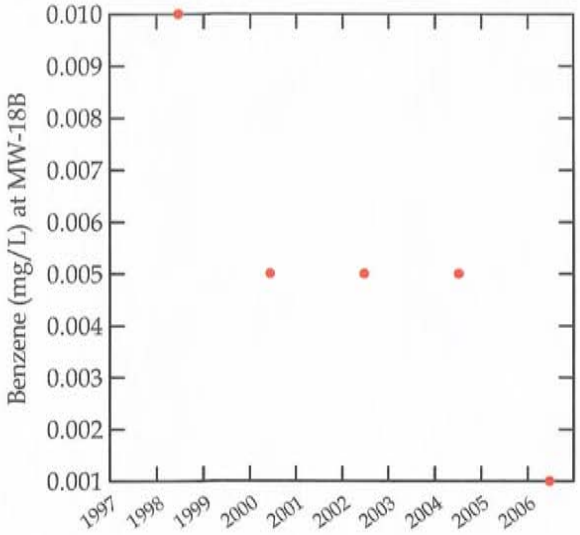
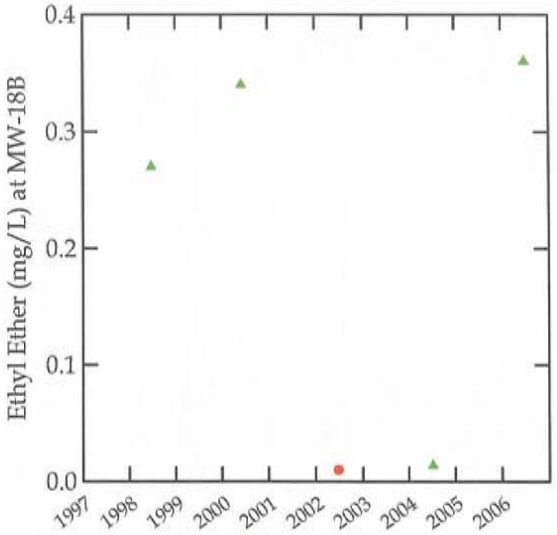
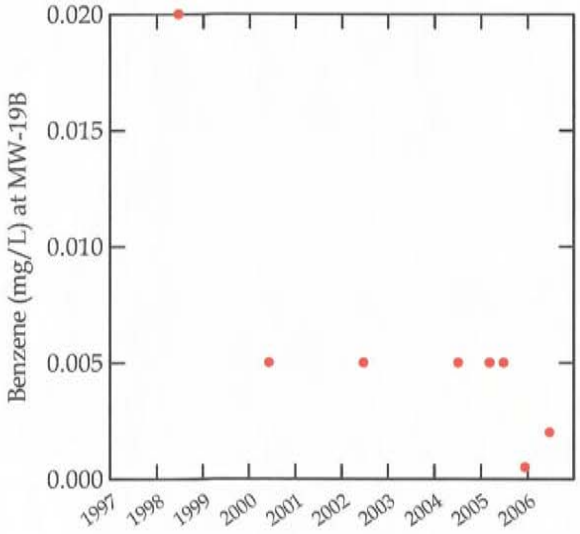
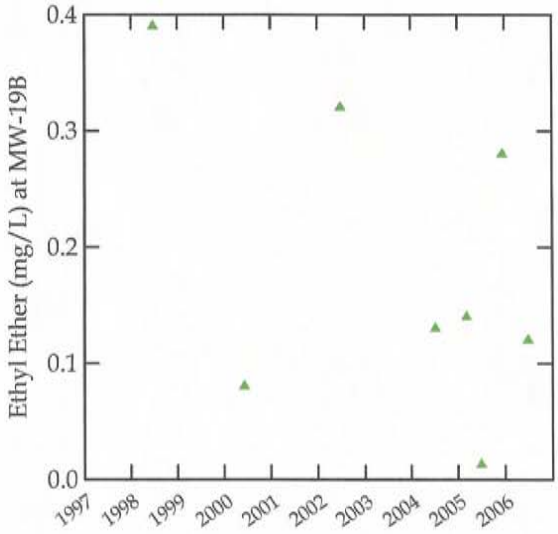
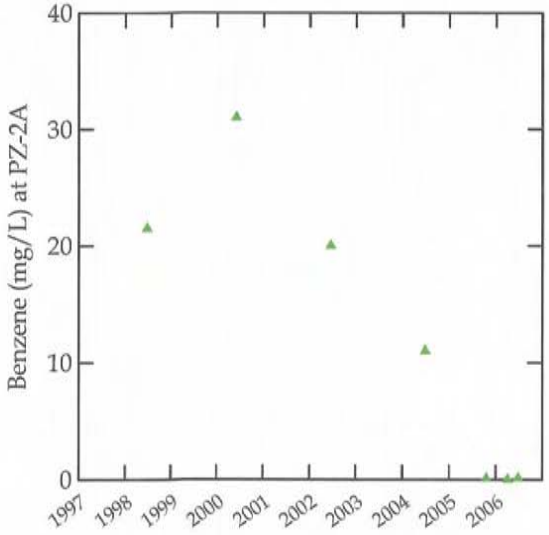
Groundwater Natural Attenuation Monitoring
Site 3, New York

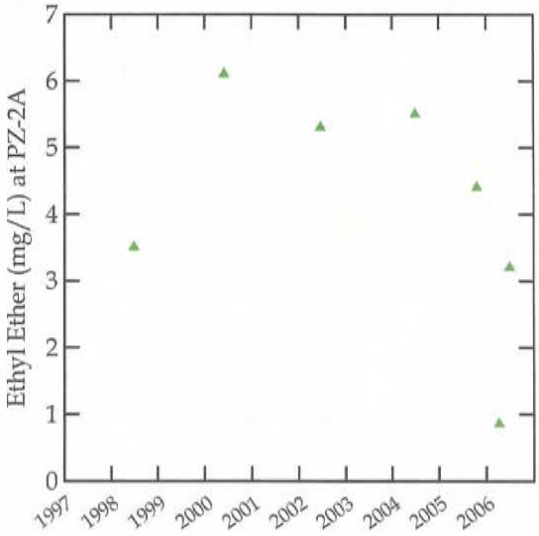












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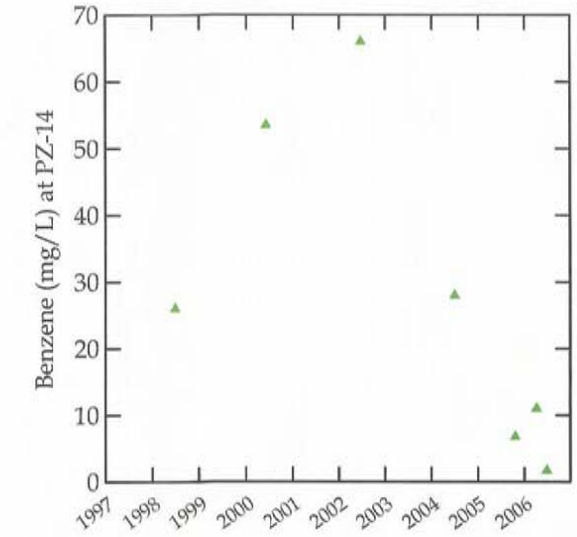
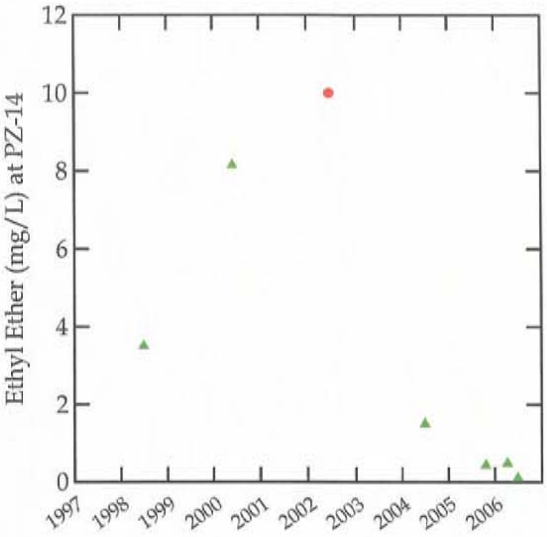
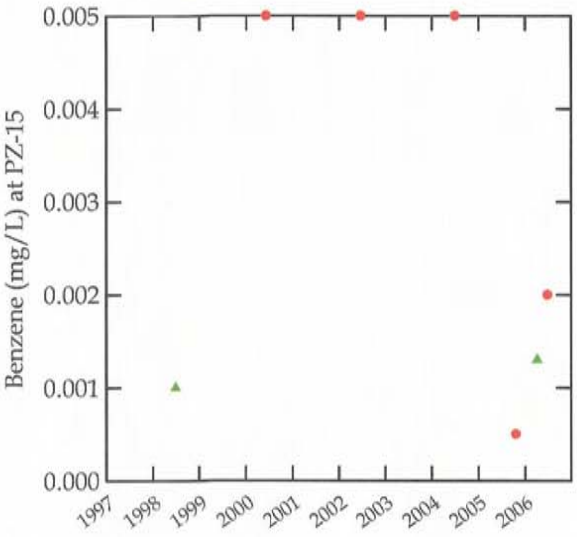
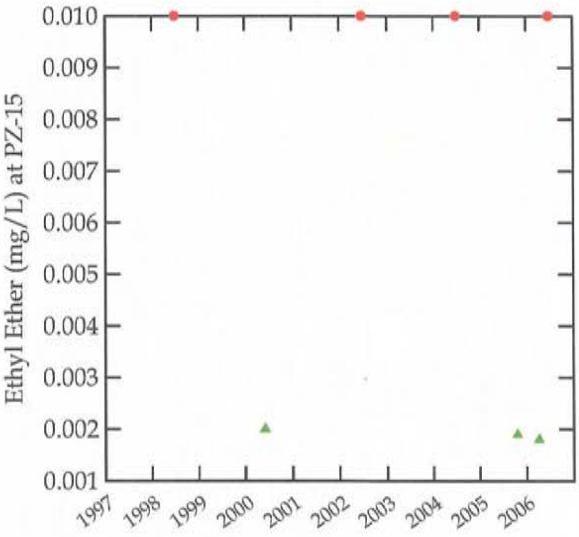
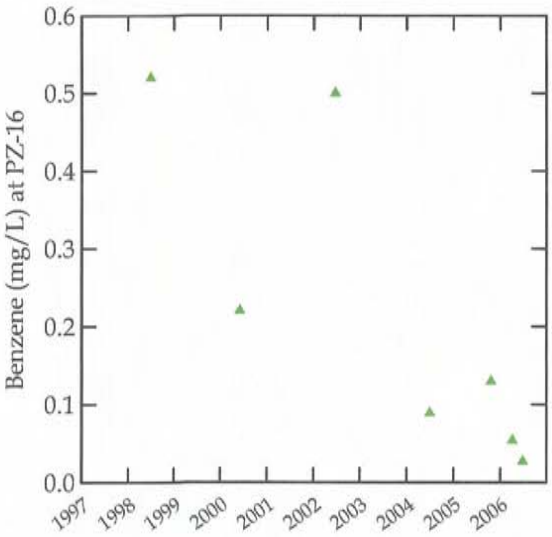
Concentration vs. Time Plots
Groundwater Natural Attenuation Monitoring
Site 3, New York

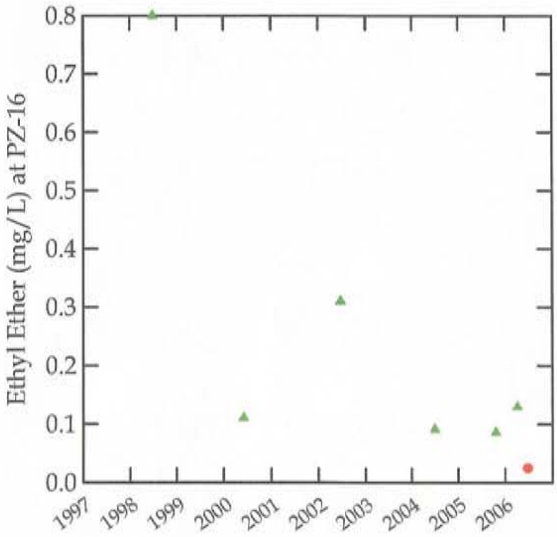












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Concentration vs. Time Plots
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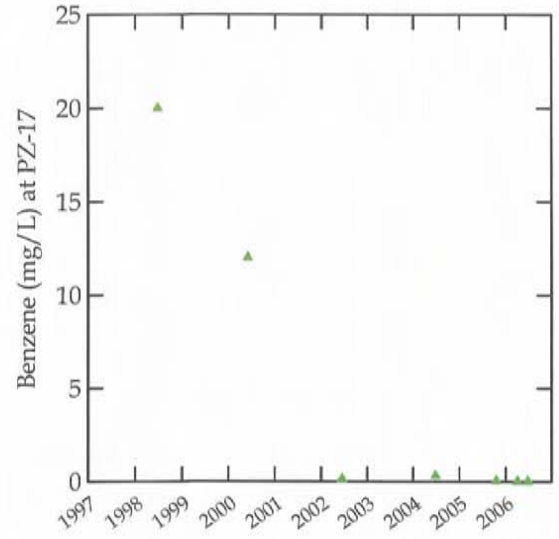

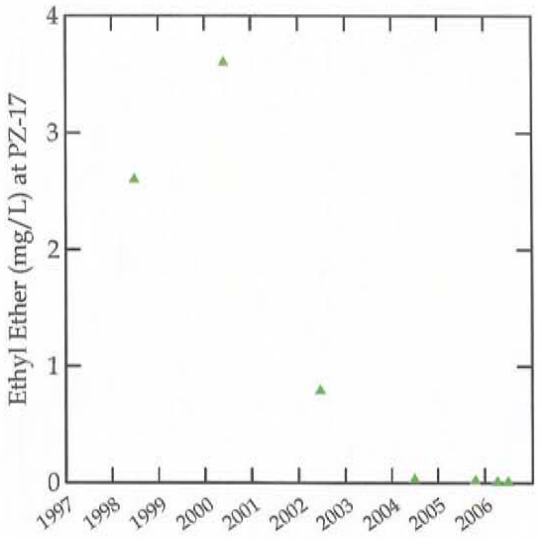

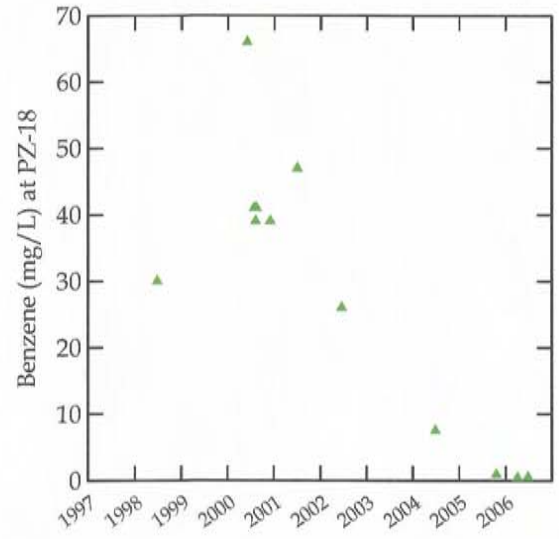

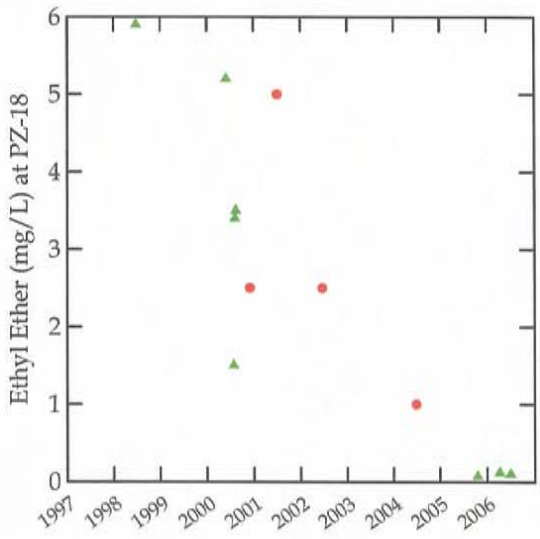

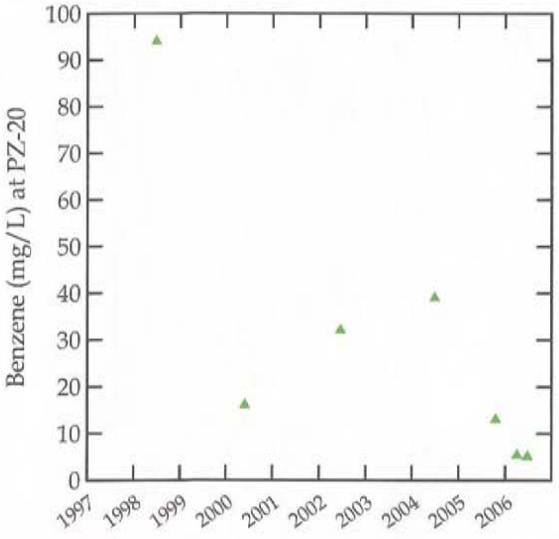

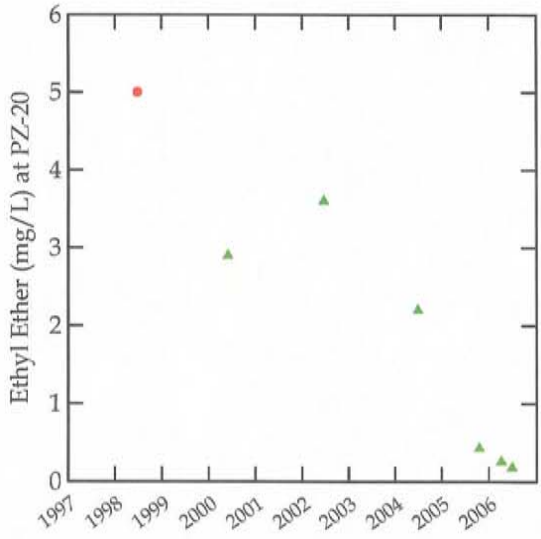

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Concentration vs. Time Plots
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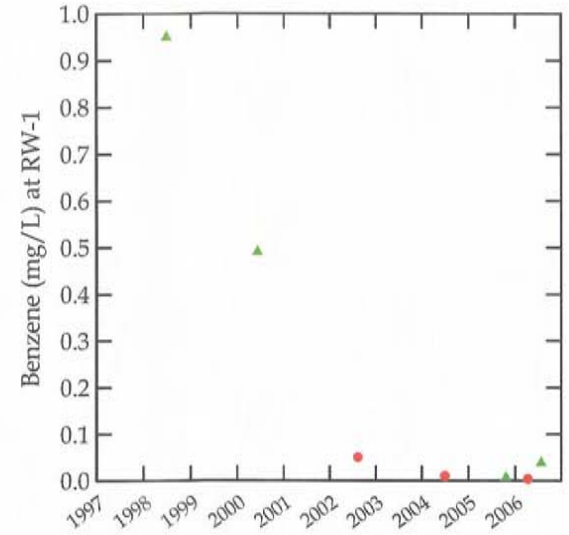

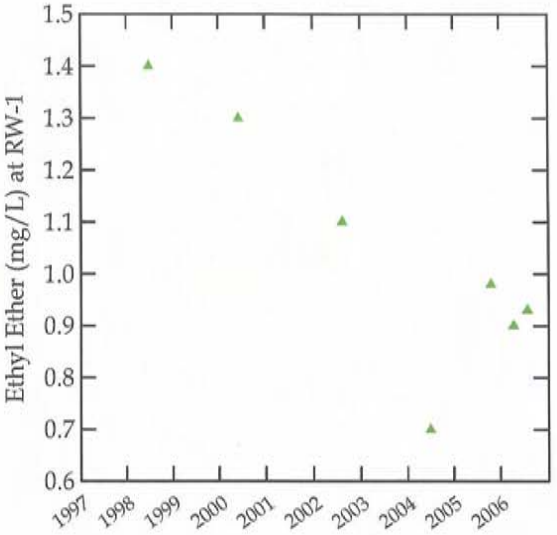

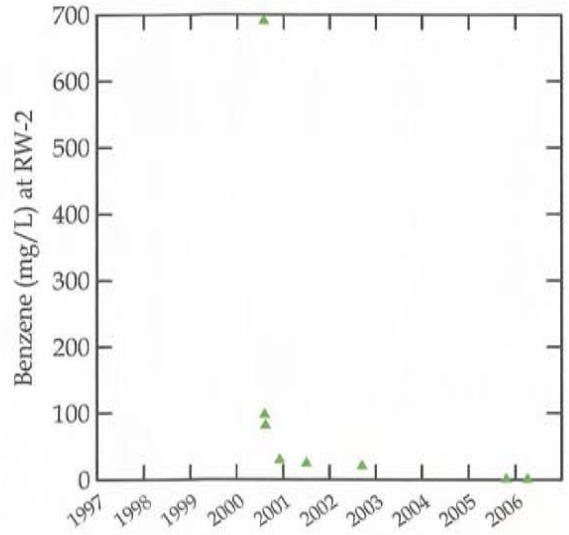

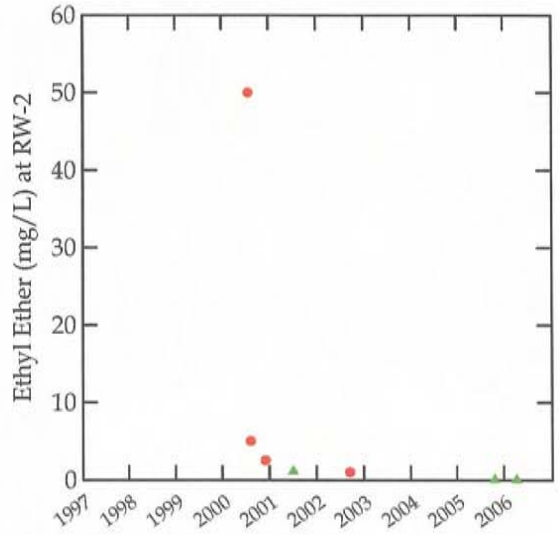

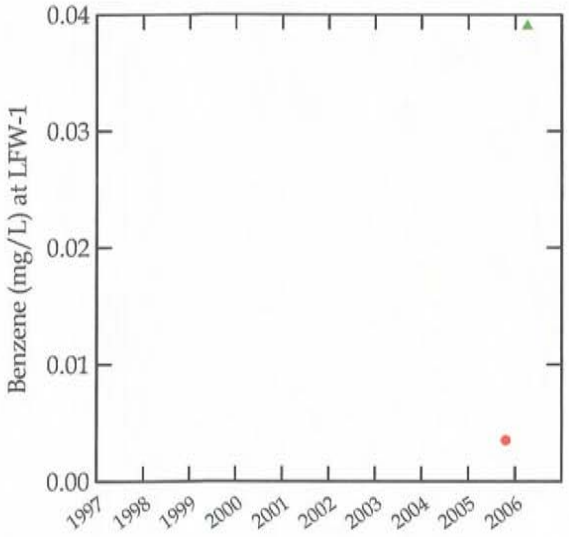

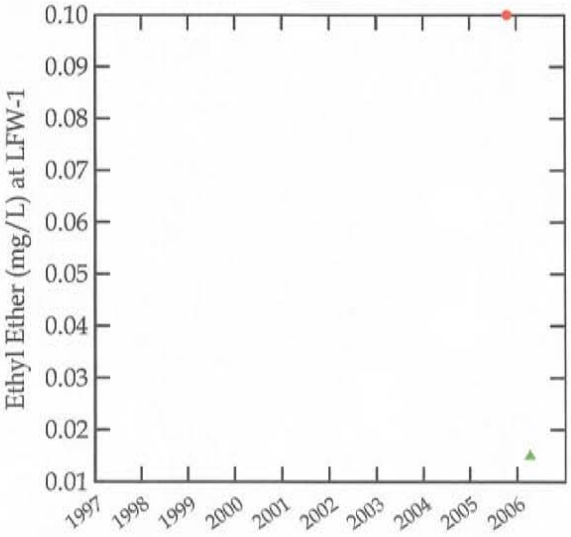

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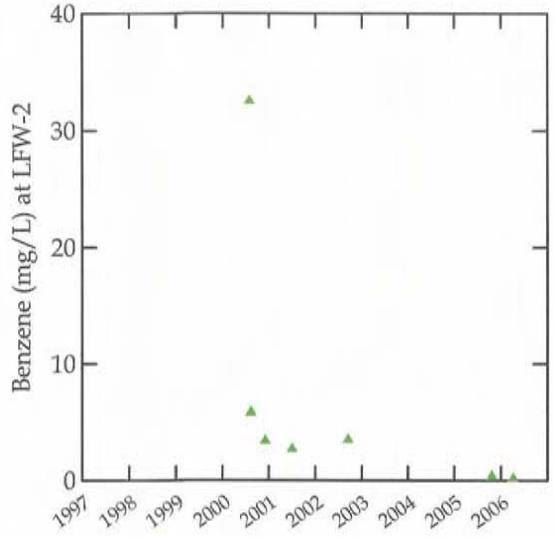

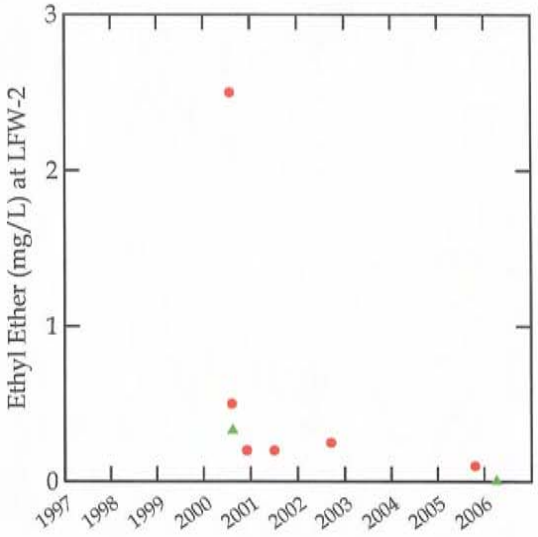

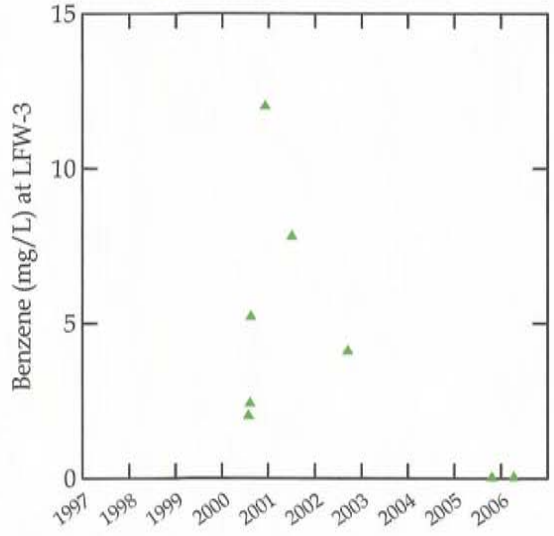

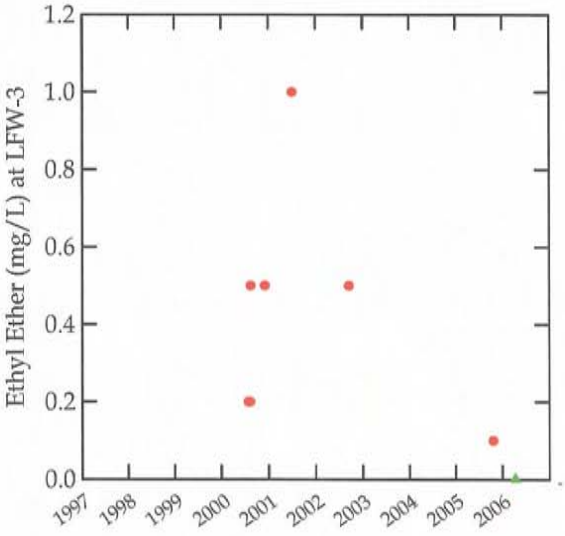

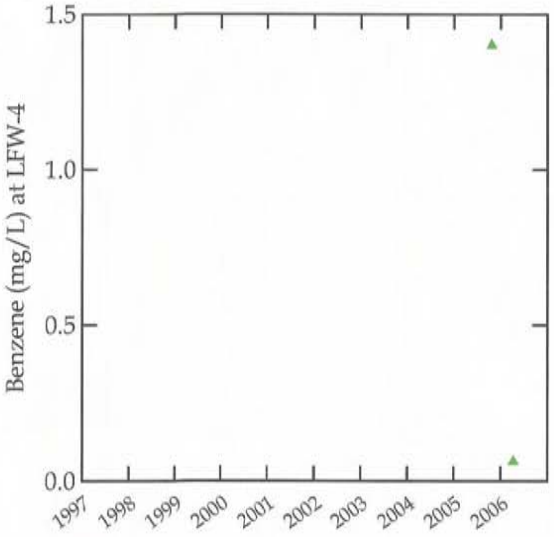

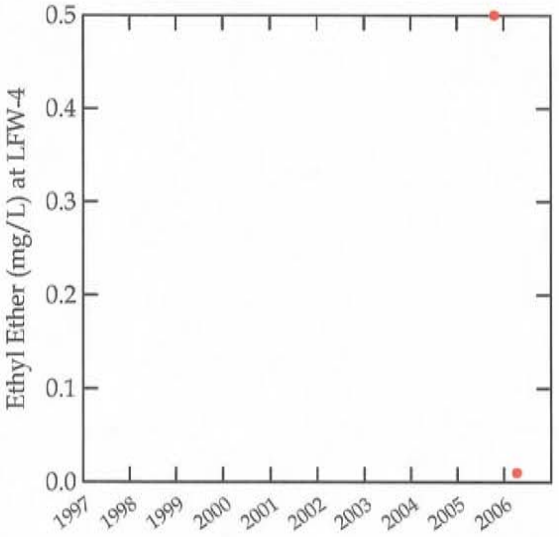

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Concentration vs. Time Plots
Groundwater Natural Attenuation Monitoring
Site 3, New York

APPENDIX C

OU2 GROUNDWATER HUMAN HEALTH RISK ASSESSMENT

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1.0 INTRODUCTION

The Sterling Drug Inc. Site 3 (Site) is located in East Greenbush, Rensselaer County, New York. The Site location is presented on Figure C.1. The Site is approximately seven acres in size and was used as a disposal area for Sterling Drug Inc. (Sterling) from 1956 to 1977. Prior activities (waste disposal) led to contamination of soil and groundwater at the Site. Remedial activities were implemented beginning in 1989 and continue to date. A Site Record of Decision (ROD) dated March 31, 1992 defined two areas of potential concern for the Site known as Operable Unit 1 (OU1) and Operable Unit 2 (OU2). OU1 includes the on-Site soils and groundwater managed by the current remedial activities. OU2 includes the off-property portion of the Site groundwater contaminant plume of ethyl ether. Although there is no current use of groundwater as a source of drinking water, and the groundwater is considered non-potable, this Human Health Risk Assessment (HHRA) was prepared to evaluate the risk associated with the potential future utilization of the off-property groundwater (OU2) for a hypothetical residential use scenario. This approach was selected because it is the most conservative.

1.1 OBJECTIVE OF THE HHRA

The purpose of the HHRA is to evaluate the potential human health risks posed by Site-related chemicals under hypothetical potential future Site conditions, assuming no additional remedial actions are taken at the Site. The specific goal of the risk assessment is to identify and provide analysis of baseline risks (defined as risks that might exist if no further remediation were applied) based upon OU2 groundwater data from 2001 through 2005.

1.2 ORGANIZATION OF THE HHRA

The HHRA is organized as follows:

- Section 1.0: Introduction

  Presents background information relevant to this HHRA, presents the purpose of this HHRA, and outlines the organization of this HHRA.

- Section 2.0: Site Characterization

  Presents a brief summary of the nature and extent of the contamination or hazard identification due to the historical operations at the Site, presents the Conceptual Site Model (CSM), and presents the selection of Chemicals of Potential Concern (COPCs).

- Section 3.0: Exposure Assessment

  Presents a summary of the exposure settings, identifies the potential exposure pathways, and quantifies exposure based on the exposure assumptions.

- Section 4.0: Toxicity Assessment

  Presents a summary of the toxicity data used to calculate the non-carcinogenic hazards and carcinogenic risks.

- Section 5.0: Risk Characterization

  Presents an assessment of the potential risks to human health posed by OU2 groundwater and includes the uncertainty analysis.

- Section 6.0: Conclusions

  Presents an overview of the COPC identification, human health exposure pathways, and results of the risk characterization.

- Section 7.0: References

  Lists references cited in the HHRA.

2.0 SITE CHARACTERIZATION

2.1 SITE DESCRIPTION

Site 3 (Site) is a 7-acre area located on Riverside Avenue, East Greenbush, in Rensselaer County, New York. The Site is located between Papscanee Creek and the Conrail railway tracks. The Site location is shown on Figure C.1. The Site is vegetated and relatively flat, and the Site is situated in the 100-year flood plain of the Hudson River. The Hudson River is located 500 feet southwest of the Site. Following closure of operations by Sterling in 1977, remedial efforts were undertaken to address soil and groundwater contamination. As defined in the ROD, two distinct areas (OU1 and OU2) were noted as areas of potential concern. OU1 includes the closed landfill, and on-Site soils and groundwater, and OU2 includes the off-property portion of the groundwater contaminant plume of ethyl ether located northwest of the landfill. Land use in the surrounding areas is mainly for agricultural purposes with some residential areas approximately 3/4 of a mile to the northeast of the Site.

2.2 GENERAL SITE USE

Between 1956 and 1977, the Site was used by Sterling for the disposal of pharmaceutical waste. Company records indicated that disposed wastes in OU1 included pharmaceutical intermediates, finished pharmaceutical products, Sterling Winthrop Research Institute waste, filter cakes, solvents, still bottoms, motor and lubricating oils, and wood. In 1977, the Site was covered with sandy clay and gravel and closed, and has remained inactive since that time.

2.3 PREVIOUS INVESTIGATIONS

The Site has been the subject of ongoing investigations and remedial activities since 1982. Results from previous investigations identified volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) as the primary contaminants in Site soils and groundwater. Several remedial activities have been implemented at the Site beginning with the removal of 8,452 buried drums from OU1 between 1989 to 1990. Many of these drums were empty, however, some also contained product. Following the removal of the drums, additional investigations were conducted to determine the extent of remaining contamination on Site. The Vacuum Extraction (VE) System and groundwater pump and treat system were installed in accordance with the Site ROD. The Air Sparging System was installed voluntarily, with the approval and

oversight of the NYSDEC, as a further enhancement to source removal prior to capping the landfill. The VE System commenced full-scale operation in December 1994 to address contaminants in the fill/soil within OU1. The Groundwater Pump and Treat System was commissioned in May 1996 to address groundwater immediately downgradient of OU1. The Air Sparging System has been operated since July 2000 to address groundwater within the hot spot areas of OU1. These systems have been effectively reducing the contaminant levels within the landfill. In addition, an impermeable cap, which has been designed, will be placed over the landfill following the evaluation of the completed treatment systems. The OU2 off-property groundwater plume is presently being monitored.

2.4 NATURE AND EXTENT OF CONTAMINATION

Previous Site investigations indicated that the subsurface consists of approximately 8 feet of a heterogeneous mixture of silt, sand, and clay fill underlain by 6 feet of lower permeability silt, silty clay, and clayey silt. The former layer was characterized as being mixed with waste products such as glass vials, flasks, wood, garbage, drainage pipes, needles, and also the drums mentioned previously, which have been excavated from this area during remedial activities between 1989 and 1990. Following drum removal, sampling conducted at the Site indicated the presence of several "hot spots" in OU1 composed of VOCs, which have been, and continue to be, addressed by the VE System. The primary contaminants of concern at OU1 included benzene, toluene, acetone, ethyl ether, dichloroethane, trichloroethane, and chloroform. In addition, a groundwater plume, consisting of ethyl ether has been detected. Monitoring of the OU2 groundwater wells is currently being conducted.

2.4.1 GROUNDWATER

Groundwater moves directly toward the Hudson River 500 feet away from the Site and surface water runoff from the Site moves directly toward the Papscanee Creek. Previous investigations have identified benzene, toluene, ethyl ether, methylene chloride, acetone, methyl thiophene, 1,2-dichloroethane, trichloroethylene, and chloroform as the primary chemicals of concern in OU1 groundwater. Concentrations were typically 1 to 2 orders of magnitude higher than the corresponding groundwater remediation goals. However, the groundwater treatment system has been effective for reducing the levels of the majority of these contaminants in OU1. During investigations, a groundwater plume consisting primarily of ethyl ether was observed to migrate from the former landfill area to off-Site agricultural land. This area has been defined as OU2. The OU2 groundwater

sampling locations are shown on Figure C.2. Investigation of the OU2 groundwater plume between 2001 and 2005 has shown that the levels of the majority of primary chemicals within OU2 are either not detected, or have been reduced to below detection levels, with the exception of ethyl ether, which still remains above the original groundwater objectives.

2.5 CONCEPTUAL SITE MODEL

In order to evaluate the significance of the impacted groundwater within OU2 at the Site, the potential pathways by which individuals may come in contact with the groundwater must be determined. The combination of factors (chemical source, media of concern, release mechanisms, and potential receptors) that could produce a complete exposure pathway and lead to human uptake of chemicals are assessed in what is defined as a Conceptual Site Model (CSM). The adjacent residents have been identified as the potential human receptors for the OU2 groundwater.

OU2 contains groundwater impacted by VOCs and metals. Currently, groundwater from OU2 is not used for potable purposes. There are no known water wells downgradient of the Site based upon a search of the Water Well Information on the NYSDEC web site (http://www.dec.state.ny.us/cfmx/extapps/WaterWell/index.cfm?view=searchByCounty). In addition, the concentrations of total iron range from 3.45 to 47.9 milligrams per litre (mg/L) and dissolved iron range from 0.375 to 43 mg/L in upgradient Site wells based on 2001 to 2005 data for monitoring wells MW-4B and MW-5B. These iron concentrations are above the aesthetic drinking water standard of 0.3 mg/L presented in the NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1) (NYSDEC, 1998). As noted, groundwater is not currently used as a source of drinking water, and, given the high background iron concentrations that exceed the NYSDEC standard in the groundwater, use of OU2 groundwater as a potable water source is unlikely in the future. However, the risk assessment that follows evaluates OU2 groundwater as a potable drinking water source, because this approach is considered the most conservative.

Exposure pathways involving groundwater as a potable drinking water source typically include direct contact to COPCs in water through ingestion and dermal contact while bathing. Indirect exposure pathways for potable groundwater involve potential release of COPCs from groundwater-to-indoor air from various activities, e.g., showering, laundering, dish washing, etc.

Table C.1 presents a summary of the future potentially complete hypothetical pathways and relevant hypothetical receptors to be evaluated in the risk assessment.

2.6 SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPCs)

This section presents the process for establishing chemicals of potential concern (COPCs) for the Site. COPCs are chemicals related to the Site that, pose the greatest potential public health risk. In general, detected chemicals are identified as COPCs based upon their concentrations and known toxicity characteristics.

As part of the identification of COPCs, the selection of COPCs for OU2 groundwater was completed using a screening process. The COPC screening process involved a comparison of the maximum detected concentration of each contaminant in OU2 groundwater to a risk-based concentration associated with target risks and conservative default exposure assumptions. The most up-to-date and the lowest of the risk-based concentrations (RBCs) from the United States Environmental Protection Agency (USEPA) Region III (R3-RBCs) (USEPA, 2006b), Region IX preliminary remediation goals (R9-PRGs) (USEPA, 2004b), NYSDOH Maximum Contaminant Levels (MCLs) (NYSDOH, 2004), and NYSDEC Ambient Water Quality Standards and Guidance Effluent Limitations, Divisions of Water Technical and Operational Guidance (TOGS) (NYSDEC, 1998) were used to identify COPCs in the groundwater for the HHRA.

TOGS (NYSDEC, 1998) presents chemical-specific standards and guidance values for a number of constituents. In addition, TOGS also includes water quality criteria for groups of chemicals such as Principal Organic Contaminant (POC), for which a standard of 5 parts per billion (ppb) applies. NYSDOH (2004) presents chemical-specific MCLs for public drinking water systems that support 25 or more individuals or have five or more connections. An MCL is defined as the maximum permissible level of a contaminant in water, which is delivered to any user of a public water system. As with TOGS, NYSDOH (2004) includes water quality criteria for groups of chemicals such as Principal Organic Contaminants, for which a standard of 5 ppb applies, and Unspecified Organic Contaminants (UOC), for which a standard of 50 ppb applies. For selection of COPCs, POCs and UOCs were used if these concentrations were the lowest available even though they are not risk-based levels.

Chemicals with maximum concentrations less than their respective screening value were not identified as COPCs, and were not retained in the HHRA quantitative process. Essential nutrients such as calcium, magnesium, potassium, and sodium were not

identified as being Site-related contaminants and, therefore, were eliminated from further evaluation. Iron is a commonly occurring metallic element that can vary in concentration depending on Site-specific conditions. As a result, additional analysis was conducted to evaluate the concentrations of iron within background groundwater samples (background iron) not impacted by Site-related activities as a method for establishing baseline iron levels for the area. Additionally, any parameter that had a level of detection frequency (LDF) less than 5 percent was not identified as a COPC for this risk assessment.

Analytical data were validated prior to application in the HHRA. Estimated results, usually indicated by a qualifier, were included in the evaluation.

2.6.1 GROUNDWATER

As presented in Table C.2, background iron levels (total and dissolved) were detected at maximum concentrations greater than the screening criteria for groundwater. As presented in Table C.3, Site groundwater concentrations of ethyl ether, iron (total), and iron (dissolved) were detected at maximum concentrations greater than the screening criteria for groundwater. As a result, background iron, and OU2 ethyl ether and iron (total and dissolved) were identified as COPCs for groundwater.

3.0 EXPOSURE ASSESSMENT

Exposure is defined as the contact of a receptor (i.e., person) with a chemical or physical agent. The exposure assessment is the estimation of the magnitude, frequency, duration, and routes of exposure. An exposure assessment provides a systematic analysis of the potential exposure mechanism by which a receptor may be exposed to chemical or physical agents at or originating from a study area. The objectives of an exposure assessment are as follows:

1. Characterization of exposure setting;
2. Identification of potential exposure pathways; and
3. Quantification of exposure.

3.1 CHARACTERIZATION OF EXPOSURE SETTING

As part of the HHRA process, potential exposure pathways are determined through an evaluation of the physical setting of the Site and the potentially exposed populations. A brief description of the physical setting of the Site is presented in Section 2.0. The consideration of Site-specific factors related to land usage is important in the development of realistic exposure scenarios and quantification of risks and hazards. The current and future potential land uses that are reasonably expected for the Site determine what populations may potentially be exposed. The Site land uses are discussed in the following subsections.

3.1.1 CURRENT AND FUTURE LAND USE

The Site has been closed and has remained inactive since 1977. The on-Site area is presently being remediated. Presently, there are no groundwater uses in either OU1 or OU2, however, for the purposes of this assessment, it was assumed that groundwater could hypothetically be used as a potable source of residential drinking water even though it is not currently used for that purpose, and it is considered non-potable because of elevated background levels of iron.

3.2 IDENTIFICATION OF POTENTIAL EXPOSURE PATHWAYS

An exposure pathway describes a mechanism by which humans may come into contact with site-related COPCs. An exposure pathway is complete (i.e., it could result in a receptor contacting a COPC) if the following four elements are present:

1. A source or a release from a source (e.g., COPCs released to groundwater due to historical releases during site operations).
2. A probable environmental migration route of a site-related COPC (e.g., leaching or partitioning from one medium to another).
3. An exposure point where a receptor may come in contact with a site-related COPC (e.g., groundwater).
4. A route by which a site-related COPC may enter a potential receptor's body (e.g., ingestion, dermal contact, or inhalation).

If any of these four elements are not present, the exposure pathway is considered incomplete and does not contribute to the total exposure from the Site.

Based on an understanding of the four components of an exposure pathway and the hypothetical future assumed use of the OU2 groundwater, human exposure pathways were identified in the HHRA. The potential human population considered relevant to the HHRA was a future hypothetical resident.

Based on these assumptions and the results of the media-specific screening presented in Section 2.6, the exposure scenarios and pathways quantified in the HHRA are summarized in Table C.1. The following media and potential human exposures (i.e., hypothetically complete pathways) have been identified for quantitative evaluation in the HHRA:

1. Background Groundwater – Hypothetical Future Resident:
   - dermal contact with groundwater by resident (child and adult);
   - ingestion of groundwater by resident (child and adult); and
   - inhalation of vapors from volatile COPCs by resident (child and adult).
2. OU2 Groundwater – Hypothetical Future Resident:
   - dermal contact with groundwater by resident (child and adult);
   - ingestion of groundwater by resident (child and adult); and
   - inhalation of vapors from volatile COPCs by resident (child and adult).

The hypothetical extraction and use of OU2 groundwater for irrigation purposes and the uptake of OU2 groundwater by biota (e.g., plants) are also potentially complete exposure pathways. However, as ethyl ether and iron are the only identified COPCs, these pathways are considered incomplete and not further evaluated in the HHRA. Ethyl ether is a VOC and the action of irrigation would result in the loss and dispersion of volatile chemicals, such as ethyl ether, to the atmosphere thereby removing any potential exposure via uptake by biota. Iron is considered an essential plant micronutrient that is required for normal plant growth. As such, plants have evolved methods for the regulation of iron uptake. In most cases, the form of iron present in OU2 groundwater is unavailable for plant uptake, and therefore, non-toxic to plants. Moreover, OU2 groundwater was evaluated in this assessment based on hypothetical future use as a potable source of residential drinking water. This scenario is considered more conservative than agricultural irrigation, and therefore, protective of scenarios involving lower exposure such as agricultural irrigation.

3.3 QUANTIFICATION OF EXPOSURE

To quantify exposure, potential exposure scenarios were developed using guidance presented in the following USEPA documents:

- USEPA Risk Assessment Guidance for Superfund (RAGS), Volume I, Human Health Evaluation Manual (Part A), EPA/540/1-89/002, December 1989 (USEPA, 1989);
- USEPA RAGS Supplemental Guidance, Standard Default Exposure Factors, Interim Final, OSWER Directive 9285.6-03, March 25, 1991 (USEPA, 1991a);
- USEPA Exposure Factors Handbook, EPA/600/P-95/002Fa, August 1997 (USEPA, 1997);
- USEPA RAGS Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments, Interim, Publication 9285.7-O1D, December 2001 (USEPA, 2001); and
- USEPA RAGS Part E, Supplemental Guidance, Dermal Risk Assessment, Final, July 2004 (USEPA, 2004a).

In the absence of USEPA guidance, professional judgment was applied to develop conservative assumptions that are representative of the Reasonable Maximum Exposure (RME) and are protective of human health.

Two exposure paradigms are presented. The Central Tendency (CT) presents the average or mean exposure, and approximates the most probable exposure conditions. The RME presents a conservative exposure scenario that generally utilizes the 90th to 95th percentile assumptions, depending upon available data.

The CT and RME values for the two exposure paradigms were determined based on the observed data distribution, i.e., normal or log-normal and the percentage of censored data points (non-detected results). Duplicate samples were averaged and considered as one sample. The statistical methods used to determine the CT and RME values were consistent with the guidance presented in USEPA (2002b, 2004c, 2006c,d).

The arithmetic mean, maximum, and 95 percent upper confidence limit (UCL) concentrations for the COPCs identified in monitoring wells associated with background groundwater for the years 1998 through 2004 are presented in Table C.4. Due to the limited data set for the background groundwater, all data collected from 1998 to 2004 was used. As the iron concentrations have not significantly changed over time it was appropriate to use all collected data (see Attachment A). The arithmetic mean, maximum, and 95 percent upper confidence limit (UCL) concentrations for the COPCs identified in monitoring wells associated with OU2 for the years 2001 through 2005, are summarized in Table C.5.

3.3.1 GENERIC ESTIMATION OF INTAKE

In the HHRA, exposure estimates reflect chemical concentration, contact rate, exposure time, and body weight in a term called "intake" or "dose". A generic equation for calculating chemical intake (USEPA, 1989) is:

$$CDI = \frac{CS \times IR \times ABS \times CF \times EF \times ED}{BW \times AT}$$

Where:

CDI = Chronic Daily intake (mg/kg body weight/day)
CS = Chemical concentration (e.g., mg/kg for soil)
IR = Ingestion Rate of Soil (e.g., mg soil/day)
ABS = Absorption Factor (%/100)
CF = Conversion factors as appropriate (e.g., kg/mg)
EF = Exposure frequency (days/year)

ED = Exposure duration (years)

BW = Body weight (kg)

AT = Averaging time (period over which exposure is averaged, e.g., days)

Carcinogens

A lifetime average daily dose of the chemical is estimated for carcinogens. This prorates the total cumulative intake over a lifetime. An averaging time (AT) of 70 years is used for carcinogens.

Non-carcinogens

The chemical intake of non-carcinogens is estimated over the appropriate exposure period or averaging time. For non-carcinogens, the averaging time is typically set equal to ED.

3.3.2 EXPOSURE SCENARIO ASSUMPTIONS

Different exposure scenarios were developed for each hypothetical receptor evaluated in the HHRA. Descriptions of each exposure scenario and associated exposure assumptions are presented in the following subsection.

Receptor characteristics had values assigned for CT and RME scenarios. In some cases these values differed between scenarios (e.g., exposure concentration, exposure frequency, etc.) and in other cases these values were the same for both CT and RME scenarios (e.g., body weight, skin surface area, ingestion rate, etc.). The assignment of receptor characteristics by scenarios followed standard practices used by the USEPA and risk assessment professionals. Where default values were used, the value presented by USEPA was selected. The specific values used are presented in the following sections.

Based on the generic screening criteria, COPCs were identified for background and OU2 groundwater.

3.3.2.1 GROUNDWATER EXPOSURE

Hypothetical Future Resident Exposure to Potable Groundwater

It was assumed, for purposes of this assessment, that future development of the area defined by OU2 may result in the potential use of groundwater within OU2 as a potable source. Thus, hypothetical resident exposure to groundwater was evaluated in the HHRA. For comparison, residential exposure to background groundwater was evaluated to identify a baseline for groundwater that has not been impacted by Site-related activities. It was assumed that the resident would be exposed to groundwater through ingestion, dermal contact, and inhalation of vapors due to constituents volatizing as a result of normal household activities such as showering, laundering and dish washing, etc. Table C.6 summarizes the conservative and health-protective assumptions used to calculate the residential exposure to groundwater. The exposure assumptions are as follows:

(i) The exposure point concentration was the mean concentration for the CT (most likely) exposure scenario and the 95 percent UCL or the maximum detected concentration, whichever was lower, for the RME exposure scenario;

(ii) The ingestion rates for children were 0.7 L/day for CT based on the recommended drinking water intakes for children aged 3 to 5 years (USEPA, 1997; Table 3-30) and 1 L/day for RME (USEPA, 1991a). The ingestion rates for adults were 1.4 L/day for CT based on the recommended drinking water intakes for adults (USEPA, 1997; Table 3-30) and 2 L/day for RME (USEPA, 1991a);

(iii) The exposed skin surface area for children was 6,600 square centimeters (cm^2) (CT and RME) and for adults was 18,000 cm^2 (CT and RME), as per USEPA (2004a);

(iv) The permeability constants are chemical-specific and were taken from the USEPA (2004a);

(v) The fractions absorbed are chemical-specific and were taken from the USEPA (2004a);

(vi) The lag times are chemical-specific and were taken from the USEPA (2004a);

(vii) The B constants are chemical-specific and were taken from the USEPA (2004a);

(viii) The inhalation rate for children was 8.3 cubic meters per day (m^3/day) for CT and 10 m^3/day for RME (USEPA, 1997). The inhalation rate for adults was 15 m^3/day for CT and 20 m^3/day for RME (USEPA, 1997);

(ix) The volatilization factor was 0.5 L/m^3 (USEPA, 1991b);

(x) The exposure frequency for residents was 350 days/year (CT and RME) based on USEPA (1991a);

(xi) The dermal exposure time for children was 0.33 hr/day for CT and 1 hr/day for RME (USEPA, 2004a). The dermal exposure time for adults was 0.25 hr/day for CT and 0.58 hr/day for RME (USEPA, 2004a);

(xii) The exposure duration for children was 6 years for both CT and RME and for adults was 3 years for CT and 24 years for RME for a combined total exposure duration of 9 years (CT) and 30 years (RME) (USEPA, 1991a);

(xiii) The dermal event frequency (EV) was 1 event/day for both CT and RME (USEPA, 2004);

(xiv) The body weight for the child resident was 16 kilogram (kg) based on USEPA (1991a). The body weight for the adult resident was 70 kg based USEPA (1989);

(xv) The carcinogenic averaging time was 365 days per year for 70 years (25,550 days); and

(xvi) The averaging time for non-carcinogens was 365 times the exposure duration (ED).

4.0 TOXICITY ASSESSMENT

The toxicity assessment weighs the available evidence regarding the potential for a particular COPC to cause adverse effects in exposed individuals and estimates the extent of exposure and possible severity of adverse effects. To develop toxicity values, two steps are taken: hazard identification and dose-response assessment. The hazard identification determines the potential adverse effects associated with exposure to a COPC. In the dose-response assessment, numerical toxicity values are determined or selected from the available toxicity data.

In the selection of toxicity values, preference has been given to the most recently developed values because these would incorporate the most recent toxicological information and would provide the best basis upon which to assess potential health hazards/risks. Toxicity values were primarily obtained from the IRIS (Integrated Risk Information System) database (USEPA, 2006a) and the USEPA-National Center for Environmental Assessment (NCEA) provisional values as presented in the USEPA Region IX PRGs (USEPA, 2004b) and USEPA Region III RBCs (USEPA, 2006b).

4.1 NON-CARCINOGENIC HAZARDS

4.1.1 TOXICITY INFORMATION FOR NON-CARCINOGENIC EFFECTS

For substances suspected to cause non-carcinogenic chronic effects, the health criteria are usually expressed as chronic intake levels or reference dose (RfDs) [in units of mg/(kg day^{-1})] below which, no adverse effects are expected. In other words, there is a level of exposure to a chemical below which no toxic effects are expected. In contrast to the toxicological model used to assess carcinogenic risk, which assumes no concentration threshold, the non-carcinogenic dose-response model postulates a "threshold".

In this risk assessment, chronic RfDs are used as the toxicity values for non-carcinogenic health effects. A chronic RfD is defined as an estimate (with an uncertainty spanning an order of magnitude or greater) of a daily exposure level for the human population, including sensitive sub-populations, which poses no appreciable risk of deleterious effects over a lifetime of exposure. Uncertainty factors are incorporated into the RfDs to account for extrapolations from animal toxicity data, data quality, and to protect sensitive sub-populations. The basis of an RfD is usually the highest dose level administered to laboratory animals that did not cause observable adverse effects after chronic (usually lifetime) exposure. This is called the No-Observed Adverse Effect Level

(NOAEL). The NOAEL is then divided by uncertainty (safety) factors, and sometimes an additional modifying factor, to obtain the RfD. In general, an uncertainty factor of 10 is used to account for interspecies variation and another factor of 10 to account for sensitive human populations. Additional factors of 10 are included in the uncertainty factor if the RfD is based on the Lowest-Observed Adverse Effect Level (LOAEL) instead of the NOAEL, or if data inadequacies are present (e.g., the experiment for which the RfD was derived had less than lifetime exposure). The LOAEL is the dose level administered to laboratory animals that causes the lowest adverse effect (e.g., liver toxicity - although this is species and chemical-specific) after chronic exposure.

Table C.7 presents the non-cancer toxicity data (RfDs) used to estimate human health effects for oral and dermal exposure routes. Table C.8 presents RfDs used for the inhalation exposure route.

4.2 CARCINOGENIC RISKS

4.2.1 TOXICITY INFORMATION FOR CARCINOGENIC EFFECTS

Cancer Slope Factors (CSFs) are quantitative risk estimates of carcinogenic potency. Slope factors relate the lifetime probability of excess cancers to the lifetime average exposure dose of a substance. CSFs are estimated using mathematical extrapolation models, most commonly the linearized multistage (LMS) model, and are presented as risk per mg/(kg-day^{-1}) (i.e., mg carcinogen per kg body weight per day). These models assume low dose-response linearity and thus may not be appropriate for some suspect carcinogens, in particular those that function as promoters. As well, the body's natural repair processes and defense mechanisms may decrease cancer risk at low exposure levels. Thus, the risks at lower exposure levels are likely overestimated using the LMS model. When adequate human epidemiology data are available, maximum likelihood estimates (MLEs) of model parameters are used to generate a CSF. When only animal data are available, the CSF is derived from the largest possible linear slope that is consistent with the data (within the upper 95 percent confidence limit). In other words, the true risk to humans, while not identifiable, is not likely to exceed the upper-bound estimate. This is a conservative estimate, and in some cases a linear slope of zero may be as appropriate for the data (i.e., no carcinogenic risk).

Known or suspect human carcinogens have been evaluated and identified by the Carcinogen Assessment Group using the USEPA Weight-of-Evidence approach for carcinogenicity classification (HEAST, 1997). The USEPA classification is based on an

evaluation of the likelihood that the agent is a human carcinogen. The evidence is characterized separately for human and animal studies as follows:

Group A - Known Human Carcinogen (sufficient evidence of carcinogenicity in humans);

Group B - Probable Human Carcinogen (B1 - limited evidence of carcinogenicity in humans; B2 - sufficient evidence of carcinogenicity in animals with inadequate or lack of evidence in humans);

Group C - Possible Human Carcinogen (limited evidence of carcinogenicity in animals and inadequate or lack of human data);

Group D - Not Classifiable as to Human Carcinogenicity (inadequate or no evidence); and

Group E - Evidence of Noncarcinogenicity for Humans (no evidence of carcinogenicity in animal studies).

The COPCs were classified utilizing the USEPA system. Table C.9 presents the cancer toxicity data (CSFs) used in the HHRA to estimate the risk of cancer for the oral and dermal exposure routes. Table C.10 presents CSFs for the inhalation exposure route.

4.3 POTENTIAL RISK FROM CARCINOGENS

A CSF is applied to estimate the potential risk of cancer from exposure to carcinogenic chemicals. The CSF, when multiplied by the lifetime average daily intake, provides an upper bound estimate of the probability that the intake will cause cancer during the lifetime of the exposed individual. USEPA notes that true risks might, in fact, be zero. This increased cancer risk is expressed, for example, as 1×10^{-6} or 1.0E-06 (1 in 1 million increased cancer risk). This is an upper limit estimate of the risk, based on very conservative health-protective assumptions and conservative statistical evaluations of data from animal experiments or epidemiological studies. To state that a chemical exposure causes a 1E-06 added upper limit risk of cancer means that if 1,000,000 people are exposed to this concentration of the chemical for their lifetimes, a maximum of one additional incident of cancer may occur. This is a very conservative estimate, and, in fact, there may be no additional cases of cancer due to the chemical exposure.

5.0 RISK CHARACTERIZATION

The objective of the risk characterization is to integrate information developed in the exposure assessment (Section 3.0) and the toxicity assessment (Section 4.0) into a complete evaluation of the potential human health risks associated with exposure to iron in the background groundwater and potentially contaminated OU2 groundwater. The methods used in this risk characterization are based on USEPA RA guidance for human exposures (USEPA, 1989, 1991a, 1991b, 1997, 2001, 2004a).

5.1 HAZARD ESTIMATES

The potential for non-cancer health effects from exposure to a COPC is evaluated by comparing an exposure level over a specified time period to a reference dose (RfD) for a similar time period. This ratio, termed the hazard quotient, is calculated according to the following general equation:

$$HQ = \frac{CDI}{RfD}$$

Where:

HQ = The Hazard Quotient (unitless) is the ratio of the exposure dose of a chemical to a reference dose not expected to cause adverse effects from a lifetime exposure. A hazard quotient equal to or below 1.0 is considered protective of human health;

CDI = The Chronic Daily Intake is the chemical dose calculated by applying the exposure scenario assumptions and expressed as mg/(kg-day^{-1}). The intake represents the average daily chemical dose over the expected period of exposure; and

RfD = The Reference Dose is a daily dose believed not to cause an adverse effect from even a lifetime exposure [mg/(kg-day^{-1})]. The RfD is based on experimental data and/or epidemiological studies.

The Hazard Index (HI) is the sum of Hazard Quotients for individual COPCs for a specific exposure scenario.

The summation of non-carcinogenic effects is only additive if they pertain to similar target organs. The HIs presented in Section 5.3 conservatively sum the non-carcinogenic effects without regard to target organs. HIs summed across similar target organs are

presented in the hazard quotient calculation tables for the background and OU2 groundwater.

5.2 CANCER RISK ESTIMATES

Exposure scenarios may involve potential exposure to more than one carcinogen. To represent the potential carcinogenic effects posed by exposure to multiple carcinogens, it is assumed, in the absence of information on synergistic or antagonistic effects, that these risks are additive. Cancer risks are calculated utilizing the following general equation:

$$\text{Cancer Risk} = \text{LADD} \times \text{CSF}$$

Where:

Cancer Risk = Estimated upper bound on additional risk of cancer over a lifetime in an individual exposed to the carcinogen for a specified exposure period (unitless);

LADD = The Lifetime Average Daily Dose of the chemical calculated using exposure scenario assumptions and expressed in mg/(kg-day^{-1}). The intake represents the total lifetime chemical dose averaged over an individual expected lifetime of 70 years; and

CSF = The Cancer Slope Factor models the potential carcinogenic response and is expressed as [mg/(kg-day^{-1})]$^{-1}$.

For estimating cancer risks from exposure to multiple carcinogens from a single exposure route, the following equation is used:

$$\text{Risk}_T = \sum_{i=1}^{N} \text{Risk}_i$$

Where:

Risk_T = Total cancer risk from route of exposure;

Risk_i = Cancer risk for the chemical; and

N = Number of chemicals.

The cumulative carcinogenic risks are presented and discussed in Section 5.3.

5.3 RISK QUANTIFICATION SUMMARY

The hazard indices and excess lifetime cancer risks for the various exposure scenarios for background and OU2 groundwater are presented below.

5.3.1 CALCULATION OF NON-CANCER HAZARDS AND CALCULATED LIFETIME CANCER RISKS FOR RECEPTORS

The non-cancer hazard calculations and calculated lifetime cancer risks for future potential receptors using background groundwater are presented in Tables C.11 and C.12 and are summarized below. The non-cancer hazard calculations and calculated lifetime cancer risks for future potential receptors using OU2 groundwater are presented in Tables C.13 and C.14 and are summarized below.

Receptor	*Medium*	*Route*	*Exposure*	*Cancer Risk*	*Risk > 10^{-6}*	*Risk > 10^{-4}*	*Non-Cancer Hazard Index*	*Hazard > 1.0*	*Table Reference*
Resident (Hypothetical Future)	Background Groundwater	Ingestion Dermal Inhalation	CT	NC	NA	NA	2.4E+00	Yes	C.11
			RME	NC	NA	NA	6.8E+00	Yes	C.12
	OU2 Groundwater	Ingestion Dermal Inhalation	CT	NC	NA	NA	3.1E+00	Yes	C.13
			RME	NC	NA	NA	6.0E+00	Yes	C.14

Note:

NC = not calculated as COPCs are not considered to be carcinogenic
NA = not applicable

The HI attributable to potential site-related impacts on OU2 groundwater, i.e., HI OU2 groundwater less HI background groundwater is <1 for both CT and RME. Details are presented in the following sections.

5.4 SUMMATION OF RISKS

A given human population may be exposed to a chemical by several exposure routes and through more than one medium. The purpose of this section is to identify the risks

associated with a population that may be exposed to background and OU2 groundwater COPCs through a combination of exposure pathways.

USEPA (1989) states that risks should be combined across exposure pathways only where the following situation occurs:

a) reasonable exposure pathway combinations are identified; and

b) it appears likely that the same individuals would consistently face the "reasonable maximum exposure" (RME) through more than one pathway.

Instead of encouraging the calculation of combined risks from across exposure pathways, USEPA (1989) cautions that each RME estimate includes many conservative assumptions and that combining estimates is not appropriate unless the combination itself is a RME:

> *"For real world situations in which contaminant concentrations vary over time and space, the same individual may or may not experience the RME for more than one pathway over the same period of time. One individual might face the RME through one pathway, and a different individual face the RME through a different pathway. Only if you can explain why the key RME assumptions for more than one pathway apply to the same individual or sub-population should the RME risks for more than one pathway be combined.*
>
> *In some situations, it may be appropriate to combine one pathway's RME risks with other pathways' risk estimates that have been derived from more typical exposure parameter values". [Emphasis added].*

It is improbable that the same person would experience all potential exposures associated with the study area or even over the periods of years specified in the individual RME scenarios. As a result, it is considered inappropriate to add together the estimated risks and hazards for the different exposure routes and pathways, because this would result in the exaggeration of an appropriate RME for the summed exposures. Therefore, it is unlikely the summation of the RME estimates would result in an underestimation of risk, and this estimate should be evaluated as a conservative estimate of the hypothetical exposure at the Site. However, where appropriate and for completeness, both cumulative CT and RME risks and hazards from separate exposure routes and media were combined to estimate total CT and RME exposures.

The cumulative HIs and lifetime cancer risks across all applicable exposure routes for future receptors exposed to iron in background groundwater are presented in Tables C.15 and C.16 and are summarized below. The cumulative HIs and lifetime cancer risks across all applicable exposure routes for future receptors exposed to OU2 groundwater are presented in Tables C.17 and C.18 and are summarized below.

Receptor	*Medium*	*Route*	*Exposure*	*Cancer Risk*	*Risk > 10^{-6}*	*Risk > 10^{-4}*	*Non-Cancer Hazard Index*	*Hazard > 1.0*	*Table Reference*
Resident (Hypothetical Future)	Background Groundwater	Ingestion Dermal Inhalation	CT	NC	NA	NA	2.4E+00	Yes	C.15
			RME	NC	NA	NA	6.8E+00	Yes	C.16
	OU2 Groundwater	Ingestion Dermal Inhalation	CT	NC	NA	NA	3.1E+00	Yes	C.17
			RME	NC	NA	NA	6.0E+00	Yes	C.18

Note:

NC = not calculated as COPCs are not considered to be carcinogenic
NA = not applicable

The HI attributable to potential site-related impacts on OU2 groundwater, i.e., HI OU2 groundwater less HI background groundwater is less than 1 for both CT and RME. Details are presented in the following sections.

5.5 RISK AND HAZARD COPC CONTRIBUTIONS

The contribution to total risk and hazard of each COPC for a specific combined exposure scenario varies, depending on the COPC exposure point concentration and relative toxicity. Frequently, most of the risk estimated for an exposure scenario can be attributed to a few COPCs. The following paragraphs present a summary of the COPCs contributing the majority of risk and/or hazard in OU2 groundwater.

Hypothetical Future Resident

Table C.19 presents the COPCs contributing the majority of the combined risk and non-cancer hazards for the future resident exposure to OU2 groundwater through ingestion, dermal contact, and inhalation.

The RME cumulative HI for OU2 groundwater was 6.0, which exceeds the target hazard level of 1.0. For OU2 groundwater, the RME HI of 6.0 primarily results from the

potential ingestion exposure to iron in the OU2 groundwater. Ingestion of iron accounts for 96 percent of the cumulative HI. The cumulative HI for the target organs associated with exposure to ethyl ether was below 1.0, therefore there is no significant hazard for the hypothetical future resident associated with ethyl ether exposure in groundwater. As shown in Table C.16 and summarized in Table C.19, the RME HI of 6.8 for exposure to iron in the background groundwater is consistent with the RME HI of 5.8 observed due to exposure to iron in OU2 groundwater. From the risk characterization, it is evident that residential ingestion exposure to iron is the main contributor to the hazard index for both background and OU2 groundwater. In addition, the calculated hazard was found to be slightly higher for residential exposure to background iron levels compared to OU2 groundwater iron. Therefore, the calculated hazard associated with iron exposure through hypothetical future residential groundwater ingestion is comparable to the normal background hazard for this area. To further characterize the hazard exceedance due to residential ingestion exposure to iron within the OU2 groundwater, additional analyses were conducted to compare OU2 concentrations of iron to background (upgradient) levels. Details of the statistical analysis are presented in Attachment A. Three statistical tests were selected to compare OU2 data to background data according to applicable guidance (e.g., USEPA, 2002a and NAVFAC, 2004). The results show that there were no statistical differences between OU2 and background iron concentrations, which suggests that former activities and the contamination present on-Site have not contributed or elevated the levels of iron in the area. As result of these findings, the hazard levels are within the acceptable levels.

5.6 UNCERTAINTY ANALYSIS

The purpose of this section is to provide a summary and discussion regarding the uncertainties associated with the HHRA evaluation. The various uncertainties are discussed below in the following sections.

5.6.1 SAMPLING PROCEDURE BIAS

The sampling strategy is a factor that impacts the health evaluation for chemicals at the Site. Often in the sampling procedures, samples are taken from locations that are visibly contaminated or where contamination would be expected and not from areas of the Site that are potentially uncontaminated. This creates a sampling bias toward worst-case (higher) exposure point concentrations in the media sampled. The utilization of such biased data in the HHRA increases the conservative or health-protective nature of the health risk and hazard assessment.

The data used to estimate CT and RME scenarios for the Site were, primarily, collected in such a biased manner. The groundwater samples were collected from historic areas of known contamination, and should represent the highest COPC concentrations. Sampling rounds usually focussed on additional characterization of the more heavily contaminated areas, thus introducing a high bias in both CT and RME scenarios.

5.6.2 EXPOSURE SCENARIO ASSUMPTIONS

As noted, for the purposes of this assessment, it was assumed that OU2 groundwater could hypothetically be used as a potable source of residential drinking water even though it is not currently used for that purpose, and it is considered non-potable because of elevated background levels of iron that exceed the aesthetic drinking water standard of 0.3 mg/L presented in TOGS (NYSDEC, 1998). Therefore, actual future risk estimates are likely to be much lower than presented here and are, in fact, likely to be zero.

Besides the applicability of the assumed exposure scenario, exposure factors used to evaluate hypothetical exposure tend to be very conservative. This section evaluates the uncertainty associated with the primary exposure scenario assumptions such as land use and frequency of exposure. Because the assumptions used in the scenarios are often not objectively based but rather are subjective estimates based on judgment, conservatism, and experience applied to available data, the tendency is to select conservative, health-protective values to guard against under-estimating exposure (and associated risks). This leads to a general over-estimation of hypothetical exposures. Exposure scenarios are, therefore, conservative in nature, and thereby provide an additional safety factor for protection of human health.

The intent of the HHRA was to develop hypothetical point estimates for both the "average" [Central Tendency (CT) or Mean] and the reasonable maximum exposure (RME) exposure scenarios. In order to accomplish this goal, a series of standardized USEPA exposure assumptions were utilized, where available and applicable. In the absence of available or applicable exposure assumptions, professional judgment was used to establish necessary assumptions protective of human health. The exposure scenarios (CT and RME) were developed to evaluate possible risk for hypothetical future groundwater use.

The major uncertainties regarding the hypothetical exposure scenarios used in the HHRA are summarized as follows:

i) Because of limited data for most chemicals in the groundwater, the mean values (for CT) and the maximum reported values (for RME) have been used as point concentrations to estimate hypothetical exposures to a hypothetical future resident population. Although the use of maximum values is generally recognized as a conservative screening approach, it should be recognized that this procedure will likely overestimate actual exposure by orders of magnitude. Use of maximum detected COPC concentrations in other exposure scenarios will lead to similar overestimates.

ii) Long-term exposure point concentrations are inherently uncertain because COPC concentrations are assumed to remain constant over time. The assumptions that the measured concentrations are equivalent during sampling and exposure over the duration of exposure will overestimate the intake and resulting risk.

5.6.3 DOSE RESPONSE

One of the major uncertainties in estimating Site-specific risk is the application of published toxicity information. Factors introducing uncertainty associated with toxicity value application are as follows:

i) Oral RfDs are established using conservative safety factors. As such, actual safe doses in humans are likely to be higher than RfDs.

5.6.4 SYNERGISTIC, ADDITIVE, AND ANTAGONISTIC EFFECTS

Receptor exposure to a mixture of chemicals can in some cases lead to synergistic, additive, or antagonistic health effects. Synergistic effects occur when chemicals interact in the receptor and cause an effect significantly greater than the sum of effects of the individual chemicals. Potential synergistic effects were not evaluated in the HHRA, and thus if these are occurring, then the calculated risks and hazards may be underestimated. Alternatively, chemicals may interact in the receptor in such a way as to cause an overall effect that is less than the sum of effects of the individual chemicals. These potential antagonistic effects were not evaluated in the HHRA, and thus, if they are occurring, the calculated risks and hazards may be overestimated.

It was assumed in the HHRA that non-carcinogenic effects were additive, such that individual chemical non-carcinogenic hazards were added to obtain a total hazard estimate. All compounds were treated as if they all affect the receptor in a similar manner although if each COPC had a different mode of action, then the resulting hazard would presumably be non-additive. For a conservative assessment, the potential non-carcinogenic hazard quotients for each COPC were added to yield a total hazard index. Although the non-carcinogenic hazards for individual chemicals were summed, there is no basis to suspect the toxic effects are additive. This suggests that the total calculated hazard indices for the hypothetical potential Site receptors are over-estimated.

6.0 CONCLUSIONS

This HHRA evaluates the hypothetical risks and hazards to human health associated with the presence of COPCs in background and OU2 groundwater. Following a screening of the groundwater chemical parameters to applicable screening criteria, iron was identified as a COPC for background groundwater, and ethyl ether and iron were identified as COPCs for OU2 groundwater. The potential receptor evaluated in the HHRA was the hypothetical future resident (child/adult). Even though OU2 groundwater is not a current source of potable residential drinking water nor is it expected to be in the future given the elevated background levels of iron, OU2 groundwater was nevertheless assumed to be a potential potable drinking water source for the purposes of this HHRA. Exposure pathways included in the HHRA were ingestion, dermal contact, and inhalation of volatiles during use of the groundwater for potable purposes. The calculated RME cumulative hazard indices for ingestion, dermal contact, and inhalation exposure to background and OU2 groundwater were 6.8 and 6.0, respectively. Ingestion of iron accounted for the majority of the cumulative non-cancer hazard index for OU2 groundwater. The hazard levels associated with ingestion of iron in the background and OU2 groundwater are similar. Following additional statistical analyses of the iron levels occurring in the OU2 groundwater, it was concluded that the levels of iron are similar to background levels for the area, and the associated calculated hazard index from hypothetical ingestion of OU2 groundwater containing iron are not Site related but represent a background hazard index for the area. Therefore, the calculated hazard index for the OU2 groundwater is considered to be within background exposure levels.

7.0 REFERENCES

Health Effects Assessment Summary Tables (HEAST), 1997. United States Environmental Protection Agency. Dated July 1, 1997.

NAVFAC, 2004. Guidance for Environmental Background Analysis. Volume III: Groundwater. Naval Facilities Engineering Command. User's Guide UG-2059-ENV. Port Hueneme, California.

New York State Department of Environmental Conservation (NYSDEC), 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations. Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. Dated June 1998.

New York State Department of Environmental Conservation (NYSDEC), 2006. *Water Well Information - Search Wizard.* Dated June 1998. Available at http://www.dec.state.ny.us/cfmx/extapps/WaterWell/index.cfm?view=searchByCounty. Dated May 2006.

New York State Department of Health (NYSDOH), 2004. *NYCRR Title 10, Part 5 – Drinking Water Supplies, Subpart 5-1 – Public Water Systems, Maximum Contaminant Levels (MCLs).* Dated May 26, 2004.

United States Environmental Protection Agency (USEPA), 1989. *Risk Assessment Guidance for Superfund (RAGS) Interim Final, (Part A).* Dated December 1989.

United States Environmental Protection Agency (USEPA), 1991a. *Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual, Supplemental Guidance, "Standard Default Exposure Factors", Interim Final.* OSWER Directive 9285.6-03. Dated March 25, 1991.

United States Environmental Protection Agency (USEPA), 1991b. *Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual (Part B, Development of Risk-Based Preliminary Remediation Goals), Interim.* Publication 9285.7-01D. Dated December 1991.

United States Environmental Protection Agency (USEPA), 1997. *Exposure Factors Handbook.* EPA/600/P-95/002F. Dated August 1997.

United States Environmental Protection Agency (USEPA), 2001. *Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual (Part D, Standardized Planning, Reporting, and Review of Superfund Risk Assessments), Interim.* Publication 9285.7-01D. Dated December 2001.

United States Environmental Protection Agency (USEPA), 2002a. Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites (OSWER 9285.7-41). Office of Emergency and Remedial Response, United States Environmental Protection Agency, Washington, DC. EPA 540-R-01-003. September 2002.

United States Environmental Protection Agency (USEPA), 2002b. Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites, Office of Emergency and Remedial Response, OSWER 9285.6-10, December 2002.

United States Environmental Protection Agency (USEPA), 2004a. *Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment).* Dated July 2004.

United States Environmental Protection Agency (USEPA), 2004b. *Preliminary Remediation Goals (R9-PRGs) Tables.* Available at: http://www.epa.gov/Region9/waste/sfund/prg/files/04prgtable.pdf. Dated October 2004.

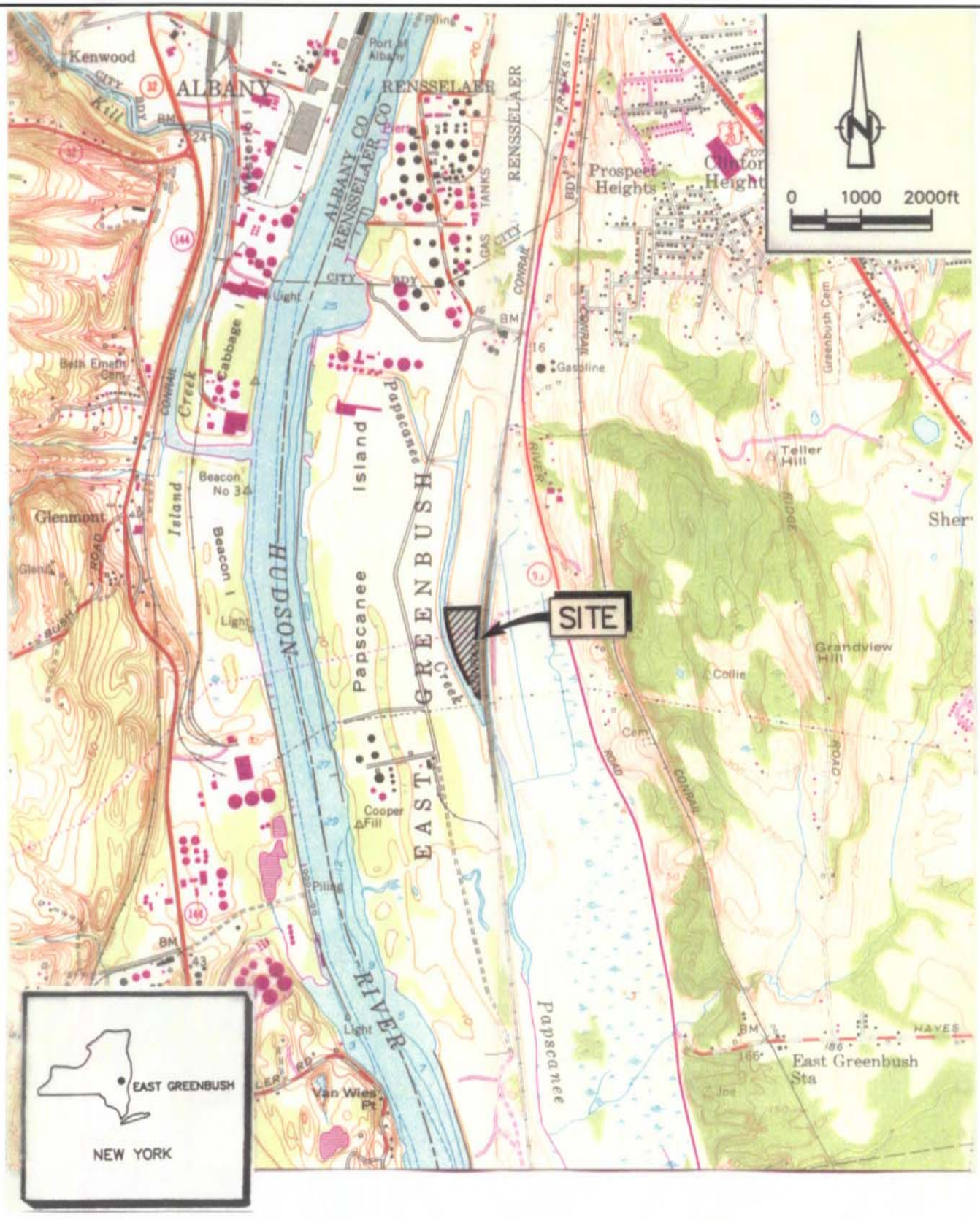
United States Environmental Protection Agency (USEPA), 2004c. ProVCL User's Guide. Version 3.0, April 2004.

United States Environmental Protection Agency (USEPA), 2006a. *Integrated Risk Information System.* Available at: www.epa.gov/iris. Dated January 31, 2006.

United States Environmental Protection Agency (USEPA), 2006b. *Risk-Based Concentrations (R3-RBC) Tables.* Available at: http://www.epa.gov/reg3hwmd/risk/human/index.htm. Dated April 2006.

United States Environmental Protection Agency (USEPA), 2006c. Data Quality Assessment: A Reviewer's Guide (EPA QA/G-9R). Office of Environmental Information, United States Environmental Protection Agency, Washington, D.C., EPA/240/B-06/002.

United States Environmental Protection Agency (USEPA), 2006d. Data Quality Assessment: Statistical Methods for Practitioners (EPA QA/G-95) office of Environmental Information, United States Environmental Protection Agency, Washington, D.C. EPA/240/B-06.



SOURCE:
U.S.G.S. TOPOGRAPHIC MAP QUADRANGLE
DELMAR AND EAST GREENBUSH, N.Y.

figure C.1

SITE LOCATION
STERLING SITE 3
East Greenbush, New York

07830-72(071)GN-WA007 OCT 06/2006

CONRAIL RAILROAD TRACKS

PAPSCANEE CREEK

MW-10B

MW-14B

MW-11B

MW-9B
MW-9A

MW-15B

MW-13A
MW-13B

RIVERSIDE AVENUE

MW-12B

MW-8B

MW-7B

MW-16B

MW-18B

MW-17B

MW-19B

HUDSON RIVER

N

0 100 300ft

LEGEND

APPROXIMATE AREAL LIMIT OF LANDFILL

MW-13B MONITORING WELL LOCATION

BACKGROUND MONITORING WELL LOCATION

SOURCE: DAMES & MOORE
WILLOW GROVE, PENNSYLVANIA

figure C.2

GROUNDWATER SAMPLE LOCATIONS
STERLING SITE 3
East Greenbush, New York

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TABLE C.1

SELECTION OF EXPOSURE PATHWAY SCENARIOS

OPERABLE UNIT 2

STERLING SITE 3

GREENBUSH, NEW YORK

Scenario Timeframe	*Medium*	*Exposure Medium*	*Exposure Point*	*Receptor Population*	*Receptor Age*	*Exposure Route*	*On-Site/ Off-Site*	*Type of Analysis*	*Data Set*	*Rationale for Selection or Exclusion of Exposure Pathway*
Current/ Future:	Groundwater	Groundwater	Direct Contact	Resident	Child & Adult	Ingestion Dermal	on-Site	Quant	Site Wide	Potential exposure to potable groundwater by residents.
		Ambient Air	Direct Contact	Resident	Child & Adult	Inhalation	on-Site	Quant	Site Wide	Potential exposure to ambient air (volatile emission) by residents when bathing.

TABLE C.2

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPCs) IN BACKGROUND GROUNDWATER
OPERABLE UNIT 2
STERLING SITE 3
GREENBUSH, NEW YORK

Scenario Timeframe: Future
Medium: Background Groundwater
Exposure Medium: Groundwater

CAS Number	Chemical	Minimum (1,2) Concentration	Minimum Qualifier	Maximum (1,2) Concentration	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency (2)	Range of Detection Limits (2)	Concentration Used for Screening (2)	NYSDOH MCLs (3)	NYSDEC TOGS (4)	R3-RBC Tap Water (5)	R9-PRG Tap Water (6)	Screening Toxicity Value (7)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for Contaminant Deletion or Selection (8)
	Total Metals																			
7439-89-6	Iron	3.45		47.9		mg/L	MW-5B (07/15/98)	7/8	16.6	47.9	0.3	0.3	11	11	0.3	N	N/A	N/A	X	ASC
	Dissolved Metals																			
7439-89-6	Iron	0.375		43		mg/L	MW-5B (07/15/98)	6/8	0.0084 - 9.2	43	0.3	0.3	11	11	0.3	N	N/A	N/A	X	ASC

Notes:

(1) Minimum/maximum detected concentration.

(2) Based on data collected from background sampling locations: MW-4B, MW-5B.

(3) NYCRR Title 10, Part 5-Drinking Water Supplies, Subpart 5-1 Public Water Systems; Maximum Contaminant Levels (MCLs), NYSDOH, May 26, 2004.

(4) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Division of Water Technical and Operational Guidance Series (1.1.1), June 1998 and addendums.

(5) Region III Risk-Based Concentration (R3-RBC) Table, Tap Water, April 11, 2006.

(6) Region IX Preliminary Remediation Goals (R9-PRG) Table, Tap Water, October 20, 2004.

(7) Screening criterion is the lower of the NYSDOH MCLs, NYSDEC TOGs, R3-RBC Tap Water, or R9-PRG Tap Water value.

(8) Rationale Codes
Selection Reason: Maximum detected above Screening Criterion (ASC)
Deletion Reason: Maximum detected below Screening Criterion (BSC)

Definitions:
C = Carcinogenic
N = Non-Carcinogenic
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
-- = Not Available
N/A = Not Applicable

TABLE C.3

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPCs) IN OU2 GROUNDWATER
OPERABLE UNIT 2
STERLING SITE 3
GREENBUSH, NEW YORK

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

CAS Number	Chemical	Minimum (1,2) Concentration	Minimum Qualifier	Maximum (1,2) Concentration	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency (2)	Range of Detection Limits (2)	Concentration Used for Screening (2)	NYSDOH MCLs (3)	NYSDEC TOGS (4)	R3-RBC Tap Water (5)	R9-PRG Tap Water (6)	Screening Toxicity Value (7)		Potential ARAR/TBC Value	Potential ARAR/TBC Source	COPC Flag	Rationale for (8) Contaminant Deletion or Selection
	Volatiles																			
67-64-1	Acetone	0.0029	J	0.0039	J	mg/L	MW-13B (06/29/05)	3/56	0.01 - 0.1	0.0039	0.05	0.05	5.5	5.5	0.05	N	N/A	N/A	.	BSC; LDF
75-15-0	Carbon disulfide	0.00022	J	0.00022	J	mg/L	MW-12B (06/29/05)	1/55	0.005 - 0.05	0.00022	0.05	–	1.0	1.0	0.05	N	N/A	N/A		BSC; LDF
67-66-3	Chloroform (Trichloromethane)	0.002	J	0.002	J	mg/L	MW-9B (07/02/01)	1/56	0.005 - 0.05	0.002	0.05	0.007	0.00015	0.00017	0.00015	C	N/A	N/A		LDF
60-29-7	Ethyl Ether	0.0013	J	5.1	J	mg/L	MW-16B (07/01/04)	43/61	0.01	5.1	0.05	–	1.2	1.2	0.05	N	N/A	N/A	X	ASC
108-88-3	Toluene	0.085		0.085		mg/L	MW-16B (06/21/02)	1/56	0.005 - 0.05	0.085	0.005	0.005	2.3	0.72	0.005	N	N/A	N/A		LDF
	Semi-Volatiles																			
117-81-7	bis(2-Ethylhexyl)phthalate	0.00005	J	0.0005	J	mg/L	MW-13B (06/20/02)	2/5	0.005 - 0.01	0.0005	0.006	0.005	0.0048	0.0048	0.0048	C	N/A	N/A		BSC
	Total Metals																			
7439-89-6	Iron	2.51		233		mg/L	MW-7B (07/01/04)	41/41	–	233	0.3	0.3	11	11	0.3	N	N/A	N/A	X	ASC
	Dissolved Metals																			
7439-89-6	Iron	0.0234	B	30.8		mg/L	MW-16B (06/24/02)	37/41	0.0084 - 0.05	30.8	0.3	0.3	11	11	0.3	N	N/A	N/A	X	ASC

Notes:

(1) Minimum/maximum detected concentration.

(2) Based on data collected from sampling locations: MW-7B, MW-8B, MW-9A, MW-9B, MW-10B, MW-11B, MW-12B, MW-13A, MW-13B, MW-14B, MW-15B, MW-16B, MW-17B, MW-18B, MW-19B.

(3) NYCRR Title 10, Part 5-Drinking Water Supplies, Subpart 5-1 Public Water Systems; Maximum Contaminant Levels (MCLs), NYSDOH, May 26, 2004.

(4) Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Division of Water Technical and Operational Guidance Series (1.1.1), June 1998 and addendums.

(5) Region III Risk-Based Concentration (R3-RBC) Table, Tap Water, April 11, 2006.

(6) Region IX Preliminary Remediation Goals (R9-PRG) Table, Tap Water, October 20, 2004.

(7) Screening criterion is the lower of the NYSDOH MCLs, NYSDEC TOGs, R3-RBC Tap Water, or R9-PRG Tap Water value.

(8) Rationale Codes
Selection Reason: Maximum detected above Screening Criterion (ASC)
Deletion Reason: Maximum detected below Screening Criterion (BSC)
Low Detection Frequency; less than 5% (LDF)

Definitions:
C = Carcinogenic
N = Non-Carcinogenic
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Considered
– = Not Available
N/A = Not Applicable
J = Associated value is estimated
B = Associated analyte detected in method blank.

TABLE C.4

EXPOSURE POINT CONCENTRATION (EPC) SUMMARY FOR CHEMICALS OF POTENTIAL CONCERN IN BACKGROUND GROUNDWATER

OPERABLE UNIT 2

STERLING SITE 3

GREENBUSH, NEW YORK

Scenario Timeframe: Future
Medium: Background Groundwater
Exposure Medium: Groundwater

Chemical of Potential Concern	*Units*	*Arithmetic Mean*	*95% UCL of Normal Data*	*Maximum Detected Concentration*	*Maximum Qualifier*	*EPC Units*	*Reasonable Maximum Exposure*			*Central Tendency*		
							Medium EPC Value	*Medium EPC Statistic*	*Medium EPC Rationale*	*Medium EPC Value*	*Medium EPC Statistic*	*Medium EPC Rationale*
Total Metals												
Iron	mg/L	1.70E+01	(1)	4.79E+01		mg/L	3.39E+01	95% UCL-T	W-Test (2)	1.70E+01	Mean-T	W-Test (2)

Notes:

For non-detects, 1/2 laboratory detection limit was used as a proxy concentration.

W-Test : Developed by Shapiro and Wild for data sets with under 50 samples.

Statistics: Maximum Detected Value (Max); 1/2 Maximum Detection Limit (1/2 Max DL); 95% UCL of Normal Data (95% UCL-N); 95% UCL of Log-transformed Data (95% UCL-T); Non-parametric method used to Determined 95% UCL (95% UCL-NP); Mean of Log-transformed Data (Mean-T); Mean of Normal Data (Mean-N); Non-parametric Method used to Determine Mean (Mean-NP).

(1) Data set is log-normally distributed.

(2) Shapiro-Wilk W Test was used for data sets where n<=50.

TABLE C.5

EXPOSURE POINT CONCENTRATION (EPC) SUMMARY FOR CHEMICALS OF POTENTIAL CONCERN IN OU2 GROUNDWATER

OPERABLE UNIT 2

STERLING SITE 3

GREENBUSH, NEW YORK

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

Chemical of Potential Concern	*Units*	*Arithmetic Mean*	*95% UCL of Normal Data*	*Maximum Detected Concentration*	*Maximum Qualifier*	*EPC Units*	*Reasonable Maximum Exposure*			*Central Tendency*		
							Medium EPC Value	*Medium EPC Statistic*	*Medium EPC Rationale*	*Medium EPC Value*	*Medium EPC Statistic*	*Medium EPC Rationale*
Volatiles												
Ethyl Ether	mg/L	5.16E-01	(1)	5.10E+00	J	mg/L	7.94E-01	95% UCL-NP	W-Test (3)	5.10E-01	Mean-NP	W-Test (3)
Total Metals												
Iron	mg/L	2.19E+01	(2)	2.33E+02		mg/L	2.88E+01	95% UCL-T	W-Test (3)	2.15E+01	Mean-T	W-Test (3)

Notes:

J = Associated value is estimated.

For non-detects, 1/2 laboratory detection limit was used as a proxy concentration.

W-Test : Developed by Shapiro and Wilk for data sets with under 50 samples.

W-Test : Developed by Shapiro and Francia for data sets with over 50 samples but under 100 samples.

Statistics: Maximum Detected Value (Max); 1/2 Maximum Detection Limit (1/2 Max DL); 95% UCL of Normal Data (95% UCL-N); 95% UCL of Log-transformed Data (95% UCL-T); Non-parametric method used to Determined 95% UCL (95% UCL-NP); Mean of Log-transformed Data (Mean-T); Mean of Normal Data (Mean-N); Non-parametric Method used to Determine Mean (Mean-NP).

(1) Data set is neither normally or lognormally distributed.

(2) Data set is log-normally distributed.

(3) Shapiro-Wilk W Test was used for data sets where n<=50. Shapiro-Francia W Test was used for data sets where 50<n>100.

TABLE C.6

VALUES USED FOR DAILY INTAKE CALCULATIONS - RESIDENTIAL SCENARIO
OPERABLE UNIT 2
STERLING SITE 3
GREENBUSH, NEW YORK

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater
Exposure Point: Ingestion, Dermal, and Inhalation
Receptor Population: Residents
Receptor Age: Child & Adult

Exposure Route	*Parameter Code*	*Parameter Definition*	*Units*	*RME Value*	*RME Rationale/ Reference*	*CT Value*	*CT Rationale/ Reference*	*Intake Equation/ Model Name*
Ingestion	CW	Chemical Concentration in Groundwater	mg/L	(1)	(1)	(1)	(1)	Chronic Daily Intake (CDI) (mg/kg-day) =
	IR - child	Ingestion Rate of Water	L/day	1	USEPA, 1991a	0.7	USEPA, 1997	CW x IR x EF x ED x 1/BW x 1/AT
	IR - adult	Ingestion Rate of Water	L/day	2	USEPA, 1991a	1.4	USEPA, 1997	
	EF	Exposure Frequency	days/year	350	USEPA, 1991a	350	USEPA, 1991a	
	ED - child	Exposure Duration	years	6	USEPA, 1991a	6	USEPA, 1991a	
	ED - adult	Exposure Duration	years	24	USEPA, 1991a	3	USEPA, 1991a	
	BW - child	Body Weight	kg	16	USEPA, 1991a	16	USEPA, 1991a	
	BW - adult	Body Weight	kg	70	USEPA, 1989	70	USEPA, 1989	
	AT-C	Averaging Time (cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N (child)	Averaging Time (non-cancer)	days	2,190	USEPA, 1989	2,190	USEPA, 1989	
	AT-N (adult)	Averaging Time (non-cancer)	days	8,760	USEPA, 1989	1,095	USEPA, 1989	
Dermal	CW	Chemical Concentration in Groundwater	mg/L	(1)	(1)	(1)	(1)	CDI (mg/kg-day) =
	SA - child	Skin Surface Area Available for Contact	cm^2	6,600	USEPA, 2004	6,600	USEPA, 2004	DAevent x SA x EF x EV x ED x 1/BW x 1/AT
	SA - adult	Skin Surface Area Available for Contact	cm^2	18,000	USEPA, 2004	18,000	USEPA, 2004	
	CF	Conversion Factor	L/cm^3	0.001	–	0.001	–	DAevent (mg/cm^2-event) - Inorganics=
	ET - child	Exposure Time	hr/event	1	USEPA, 2004	0.33	USEPA, 2004	PC x CW x CF x ET
	ET - adult	Exposure Time	hr/event	0.58	USEPA, 2004	0.25	USEPA, 2004	
	EV	Event Frequency	events/day	1	USEPA, 2004	1	USEPA, 2004	
	EF	Exposure Frequency	days/year	350	USEPA, 1991a	350	USEPA, 1991a	DAevent (mg/cm^2-event) - Organics=
	ED - child	Exposure Duration	years	6	USEPA, 1991a	6	USEPA, 1991a	ET <= t^* =
	ED - adult	Exposure Duration	years	24	USEPA, 1991a	3	USEPA, 1991a	2 x FA x PC x CW x CF x SQRT(6 x Tevent x ET / PI)
	BW - child	Body Weight	kg	16	USEPA, 1991a	16	USEPA, 1991a	ET > t^* =
	BW - adult	Body Weight	kg	70	USEPA, 1989	70	USEPA, 1989	FA x PC x CW x CF x (ET/(1+B)+2 x Tevent x ((1+3B+$3B^2$)/(1+B)^2)
	AT-C	Averaging Time (cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	t^* =2.4 x Tevent
	AT-N (child)	Averaging Time (non-cancer)	days	2,190	USEPA, 1989	2,190	USEPA, 1989	
	AT-N (adult)	Averaging Time (non-cancer)	days	8,760	USEPA, 1989	1,095	USEPA, 1989	
	PC	Permeability Constant	cm/hr	chemical specific	USEPA, 2004	chemical specific	USEPA, 2004	
	FA	Fraction Absorbed	dimensionless	chemical specific	USEPA, 2004	chemical specific	USEPA, 2004	
	Tevent	Lag Time per event	hr/event	chemical specific	USEPA, 2004	chemical specific	USEPA, 2004	
	B	Constant	dimensionless	chemical specific	USEPA, 2004	chemical specific	USEPA, 2004	
Inhalation	CW	Chemical Concentration in Groundwater	mg/L	(1)	(1)	(1)	(1)	CDI (mg/kg-day) =
	IR - child	Inhalation Rate	m^3/day	10	USEPA, 1997	8.3	USEPA, 1997	CW x IR x EF x ED x K x 1/BW x 1/AT
	IR - adult	Inhalation Rate	m^3/day	20	USEPA, 1997	15	USEPA, 1997	
	EF	Exposure Frequency	days/year	350	USEPA, 1991a	350	USEPA, 1991a	
	ED - child	Exposure Duration	years	6	USEPA, 1991a	6	USEPA, 1991a	
	ED - adult	Exposure Duration	years	24	USEPA, 1991a	3	USEPA, 1991a	
	BW - child	Body Weight	kg	16	USEPA, 1991a	16	USEPA, 1991a	
	BW - adult	Body Weight	kg	70	USEPA, 1989	70	USEPA, 1989	
	AT-C	Averaging Time (cancer)	days	25,550	USEPA, 1989	25,550	USEPA, 1989	
	AT-N (child)	Averaging Time (non-cancer)	days	2,190	USEPA, 1989	2,190	USEPA, 1989	
	AT-N (adult)	Averaging Time (non-cancer)	days	8,760	USEPA, 1989	1,095	USEPA, 1989	
	K	Volatilization Factor	L/m^3	0.0005 x 1000	USEPA, 1991b	0.0005 x 1000	USEPA, 1991b	

Notes:
(1) For background groundwater concentrations, see Table C.4. For site groundwater concentrations, see Table C.5.

Sources :
EPA, 1989: Risk Assessment Guidance for Superfund. Vol. 1: Human Health Evaluation Manual, Part A OERR. EPA/540-1-89-002.
EPA, 1991a: Risk Assessment Guidance for Superfund. Vol. 1: Human Health Evaluation Manual - Supplemental Guidance, Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.
EPA, 1991b: Risk Assessment Guidance for Superfund Vo. 1: Human Health Evaluation Manual (Part B, Development of Risk-Based Preliminary Remediation Goals), Publication 9285.7-01B.
EPA, 1997: Exposure Factors Handbook, EPA/600/P-95/002F, August 1997.
EPA, 2004: RAGs Volume 1, Human Health Evaluation Manual, Part E: Supplemental Guidance for Dermal Risk Assessment, EPA/540/R/99/005, July 2004.

TABLE C.7

NON-CANCER TOXICITY DATA -- ORAL/DERMAL ROUTE OF EXPOSURE

OPERABLE UNIT 2

STERLING SITE 3

GREENBUSH, NEW YORK

Chemical of Potential Concern (COPC)	*Chronic/ Subchronic*	*Oral RfD Value*	*Oral RfD Units*	*Oral to Dermal Adjustment Factor (1)*	*Adjusted Dermal RfD (2)*	*Units*	*Primary Target Organ*	*Combined Uncertainty/Modifying Factors*	*Sources of RfD: Target Organ*	*Dates of RfD: Target Organ (3) (MM/DD/YY)*
Volatiles										
Ethyl Ether	chronic	2.00E-01	mg/kg-d	100%	2.00E-01	mg/kg-d	body weight	3000	IRIS	01/31/06
Metals										
Iron	chronic	3.00E-01	mg/kg-d	100%	3.00E-01	mg/kg-d	--	--	NCEA	10/26/05

Notes:

-- = Not Available

N/A = Not Applicable

(1) USEPA, Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual, Part E Supplemental Guidance for Dermal Risk Assessment, EPA/540/R/99/005, July 2004.

(2) Adjusted Dermal RfD = Oral RfD x Oral to Dermal Adjustment Factor

(3) IRIS, Integrated Risk Information System Database, January 31, 2006.

Provisional values supplied by NCEA. Values may be taken from either Region III Risk-Based Concentration Table (04/11/06) or Region IX Preliminary Remediation Goals Table (10/20/04).

TABLE C.8

NON-CANCER TOXICITY DATA -- INHALATION ROUTE OF EXPOSURE
OPERABLE UNIT 2
STERLING SITE 3
GREENBUSH, NEW YORK

Chemical of Potential Concern (COPC)	*Chronic/ Subchronic*	*Value Inhalation RfC*	*Units*	*Adjusted Inhalation RfD (1)*	*Units*	*Primary Target Organ*	*Combined Uncertainty/Modifying Factors*	*Sources of RfC:RfD: Target Organ*	*Dates (2) (MM/DD/YY)*
Volatiles									
Ethyl Ether	--	--	--	--	--	--	--	--	--
Metals									
Iron	--	--	--	--	--	--	--	--	--

Notes:

-- = Not Available

(1) (RfC x Inhalation Rate)/Body Weight

(2) IRIS, Integrated Risk Information System Database, January 31, 2006.

Provisional values supplied by NCEA. Values may be taken from either Region III Risk-Based Concentration Table (04/11/06) or Region IX Preliminary Remediation Goals Table (10/20/04).

TABLE C.9

CANCER TOXICITY DATA -- ORAL/DERMAL ROUTE OF EXPOSURE

OPERABLE UNIT 2

STERLING SITE 3

GREENBUSH, NEW YORK

Chemical of Potential Concern (COPC)	*Oral Cancer Slope Factor*	*Oral to Dermal Adjustment Factor (1)*	*Adjusted Dermal Cancer Slope Factor (2)*	*Units*	*Weight of Evidence/ Cancer Guideline Description*	*Source*	*Date (3) (MM/DD/YY)*
Volatiles							
Ethyl Ether	--	--	--	--	--	--	--
Metals							
Iron	--	--	--	--	--	--	--

Notes:

-- = Not Available

(1) USEPA, Risk Assessment Guidance for Superfund, Volume 1: Human Health Evaluation Manual, Part E Supplemental Guidance for Dermal Risk Assessment, EPA/540/R/99/005, July 2004

(2) Adjusted Dermal CSF = Oral CSF / Oral to Dermal Adjustment Factor

(3) IRIS, Integrated Risk Information System Database, January 31, 2006.
Provisional values supplied by NCEA. Values may be taken from either Region III Risk-Based Concentration Table (04/11/06) or Region IX Preliminary Remediation Goals Table (10/20/04).

EPA Weight of Evidence Classification :

A - Known Human carcinogen

B1 - Probable human carcinogen - indicates that limited human data are available

B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

C - Possible human carcinogen

D - Not classifiable as a human carcinogen

E - Evidence of noncarcinogenicity

TABLE C.10

CANCER TOXICITY DATA -- INHALATION ROUTE OF EXPOSURE

OPERABLE UNIT 2

STERLING SITE 3

GREENBUSH, NEW YORK

Chemical of Potential Concern (COPC)	*Unit Risk*	*Units*	*Adjustment (1)*	*Inhalation Cancer Slope Factor (2)*	*Units*	*Weight of Evidence/ Cancer Guideline Description*	*Source*	*Date (3) (MM/DD/YY)*
Volatiles								
Ethyl Ether	--	--	--	--	--	--	--	--
Metals								
Iron	--	--	--	--	--	--	--	--

Notes:

-- = Not Available

(1) Adjustment Factor = 70 kg x 1/20 m^3/day x 1,000 µg/mg

(2) Inhalation CSF = Unit Risk x Adjustment Factor

(3) IRIS, Integrated Risk Information System Database, January 31, 2006.
Provisional values supplied by NCEA. Values may be taken from either Region III Risk-Based Concentration Table (04/11/06) or Region IX Preliminary Remediation Goals Table (10/20/04).

EPA Weight of Evidence Classification :

A - Known Human carcinogen

B1 - Probable human carcinogen - indicates that limited human data are available

B2 - Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans

C - Possible human carcinogen

D - Not classifiable as a human carcinogen

E - Evidence of noncarcinogenicity

TABLE C.11

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS FOR FUTURE RESIDENT EXPOSURE TO BACKGROUND GROUNDWATER
CENTRAL TENDENCY
OPERABLE UNIT 2
STERLING SITE 3
GREENBUSH, NEW YORK

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child and Adult

Medium	*Exposure Medium*	*Exposure Point*	*Exposure Route*	*Chemical of Potential Concern*	*EPC*		*Cancer Risk Calculations*					*Non-Cancer Hazard Calculations*				
					Value	*Units*	*Intake/Exposure Concentration*		*CSF/Unit Risk*		*Cancer Risk*	*Intake/Exposure Concentration*		*RfD/RfC*		*Hazard Quotient*
							Value	*Units*	*Value*	*Units*		*Value*	*Units*	*Value*	*Units*	
Background Groundwater	Groundwater	OU 2	Ingestion	Iron	1.70E+01	mg/L	7.50E-02	mg/kg-d	–	(mg/kg-d)-1	NC	7.12E-01	mg/kg-d	3.00E-01	mg/kg-d	2.37E+00
			Exp. Route Total								NC					2.37E+00
		Exposure Point Total									NC					2.37E+00
	Exposure Medium Total										NC					2.37E+00
	Groundwater	OU 2	Dermal	Iron	1.70E+01	mg/L	2.35E-04	mg/kg-d	–	(mg/kg-d)-1	NC	2.22E-03	mg/kg-d	3.00E-01	mg/kg-d	7.38E-03
			Exp. Route Total								NC					7.38E-03
		Exposure Point Total									NC					7.38E-03
	Exposure Medium Total										NC					2.38E+00
	Ambient Air	Vapors from Household Use	Inhalation	Iron	NA	mg/L	NC	mg/kg-d	–	(mg/kg-d)-1	NC	NC	mg/kg-d	–	mg/kg-d	NC
			Exp. Route Total								NC					NC
		Exposure Point Total									NC					NC
	Exposure Medium Total										NC					2.38E+00
Medium Total											NC					2.38E+00
											Total of Receptor Risks Across All Media					**2.4E+00**

Notes:
NC = Not Calculated
NA = Not Applicable

TABLE C.12

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS FOR FUTURE RESIDENT EXPOSURE TO BACKGROUND GROUNDWATER
REASONABLE MAXIMUM EXPOSURE
OPERABLE UNIT 2
STERLING SITE 3
GREENBUSH, NEW YORK

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child and Adult

Medium	*Exposure Medium*	*Exposure Point*	*Exposure Route*	*Chemical of Potential Concern*	*EPC*		*Cancer Risk Calculations*					*Non-Cancer Hazard Calculations*				
					Value	*Units*	*Intake/Exposure Concentration*		*CSF/Unit Risk*		*Cancer Risk*	*Intake/Exposure Concentration*		*RfD/RfC*		*Hazard Quotient*
							Value	*Units*	*Value*	*Units*		*Value*	*Units*	*Value*	*Units*	
Background Groundwater	Groundwater	OU 2	Ingestion	Iron	3.39E+01	mg/L	4.93E-01	mg/kg-d	--	(mg/kg-d)-1	NC	2.03E+00	mg/kg-d	3.00E-01	mg/kg-d	6.78E+00
			Exp. Route Total								NC					6.78E+00
		Exposure Point Total									NC					6.78E+00
	Exposure Medium Total										NC					6.78E+00
	Groundwater	OU 2	Dermal	Iron	3.39E+01	mg/L	2.81E-03	mg/kg-d	--	(mg/kg-d)-1	NC	1.34E-02	mg/kg-d	3.00E-01	mg/kg-d	4.47E-02
			Exp. Route Total								NC					4.47E-02
		Exposure Point Total									NC					4.47E-02
	Exposure Medium Total										NC					6.82E+00
	Ambient Air	Vapors from Household Use	Inhalation	Iron	NA	mg/L	NC	mg/kg-d	--	(mg/kg-d)-1	NC	NC	mg/kg-d	--	mg/kg-d	NC
			Exp. Route Total								NC					NC
		Exposure Point Total									NC					NC
	Exposure Medium Total										NC					6.82E+00
Medium Total											NC					6.82E+00
											Total of Receptor Risks Across All Media					**Total of Receptor Hazards Across All Media**
											NC					**6.8E+00**

Notes:
NC = Not Calculated
NA = Not Applicable

TABLE C.13

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS FOR FUTURE RESIDENT EXPOSURE TO OU2 GROUNDWATER
CENTRAL TENDENCY
OPERABLE UNIT 2
STERLING SITE 3
GREENBUSH, NEW YORK

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child and Adult

Medium	*Exposure Medium*	*Exposure Point*	*Exposure Route*	*Chemical of Potential Concern*	*EPC*		*Cancer Risk Calculations*					*Non-Cancer Hazard Calculations*				
					Value	*Units*	*Intake/Exposure Concentration*		*CSF/Unit Risk*		*Cancer Risk*	*Intake/Exposure Concentration*		*RfD/RfC*		*Hazard Quotient*
							Value	*Units*	*Value*	*Units*		*Value*	*Units*	*Value*	*Units*	
Groundwater	Groundwater	OU 2	Ingestion	Ethyl Ether	5.10E-01	mg/L	2.25E-03	mg/kg-d	–	(mg/kg-d)-1	NC	2.14E-02	mg/kg-d	2.00E-01	mg/kg-d	1.07E-01
				Iron	2.15E+01	mg/L	9.52E-02	mg/kg-d	–	(mg/kg-d)-1	NC	9.04E-01	mg/kg-d	3.00E-01	mg/kg-d	3.01E+00
			Exp. Route Total								NC					3.12E+00
		Exposure Point Total									NC					3.12E+00
	Exposure Medium Total										NC					3.12E+00
	Groundwater	OU 2	Dermal	Ethyl Ether	5.10E-01	mg/L	5.44E-05	mg/kg-d	–	(mg/kg-d)-1	NC	5.00E-04	mg/kg-d	2.00E-01	mg/kg-d	2.50E-03
				Iron	2.15E+01	mg/L	2.98E-04	mg/kg-d	–	(mg/kg-d)-1	NC	2.81E-03	mg/kg-d	3.00E-01	mg/kg-d	9.38E-03
			Exp. Route Total								NC					1.19E-02
		Exposure Point Total									NC					1.19E-02
	Exposure Medium Total										NC					3.13E+00
	Ambient Air	Vapors from Household Use	Inhalation	Ethyl Ether	5.10E-01	mg/L	1.31E-02	mg/kg-d	–	(mg/kg-d)-1	NC	1.27E-01	mg/kg-d	–	mg/kg-d	NC
				Iron	NA	mg/L	NC	mg/kg-d	–	(mg/kg-d)-1	NC	NC	mg/kg-d	–	mg/kg-d	NC
			Exp. Route Total								NC					NC
		Exposure Point Total									NC					NC
	Exposure Medium Total										NC					3.13E+00
Medium Total											NC					3.13E+00
										Total of Receptor Risks Across All Media	**NC**	**Total of Receptor Hazards Across All Media**				**3.1E+00**

Notes:
NC = Not Calculated
NA = Not Applicable

TABLE C.14

CALCULATION OF CHEMICAL CANCER RISKS AND NON-CANCER HAZARDS FOR FUTURE RESIDENT EXPOSURE TO OU2 GROUNDWATER
REASONABLE MAXIMUM EXPOSURE
OPERABLE UNIT 2
STERLING SITE 3
GREENBUSH, NEW YORK

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child and Adult

Medium	*Exposure Medium*	*Exposure Point*	*Exposure Route*	*Chemical of Potential Concern*	*EPC*		*Cancer Risk Calculations*					*Non-Cancer Hazard Calculations*				
					Value	*Units*	*Intake/Exposure Concentration*		*CSF/Unit Risk*		*Cancer Risk*	*Intake/Exposure Concentration*		*RfD/RfC*		*Hazard Quotient*
							Value	*Units*	*Value*	*Units*		*Value*	*Units*	*Value*	*Units*	
Groundwater	Groundwater	OU 2	Ingestion	Ethyl Ether	7.94E-01	mg/L	1.15E-02	mg/kg-d	--	(mg/kg-d)-1	NC	4.76E-02	mg/kg-d	2.00E-01	mg/kg-d	2.38E-01
				Iron	2.88E+01	mg/L	4.18E-01	mg/kg-d	--	(mg/kg-d)-1	NC	1.73E+00	mg/kg-d	3.00E-01	mg/kg-d	5.75E+00
			Exp. Route Total								NC					5.99E+00
		Exposure Point Total									NC					5.99E+00
	Exposure Medium Total										NC					5.99E+00
	Groundwater	OU 2	Dermal	Ethyl Ether	7.94E-01	mg/L	3.36E-04	mg/kg-d	--	(mg/kg-d)-1	NC	1.35E-03	mg/kg-d	2.00E-01	mg/kg-d	6.77E-03
				Iron	2.88E+01	mg/L	2.39E-03	mg/kg-d	--	(mg/kg-d)-1	NC	1.14E-02	mg/kg-d	3.00E-01	mg/kg-d	3.80E-02
			Exp. Route Total								NC					4.47E-02
		Exposure Point Total									NC					4.47E-02
	Exposure Medium Total										NC					6.04E+00
	Ambient Air	Vapors from Household Use	Inhalation	Ethyl Ether	7.94E-01	mg/L	5.77E-02	mg/kg-d	--	(mg/kg-d)-1	NC	2.38E-01	mg/kg-d	--	mg/kg-d	NC
				Iron	NA	mg/L	NC	mg/kg-d	--	(mg/kg-d)-1	NC	NC	mg/kg-d	--	mg/kg-d	NC
			Exp. Route Total								NC					NC
		Exposure Point Total									NC					NC
	Exposure Medium Total										NC					6.04E+00
Medium Total											NC					6.04E+00
											Total of Receptor Risks Across All Media					**NC**	**Total of Receptor Hazards Across All Media**				**6.0E+00**

Notes:
NC = Not Calculated
NA = Not Applicable

TABLE C.15

SUMMARY OF FUTURE RESIDENT RISKS AND HAZARDS FOR COPCs IN BACKGROUND GROUNDWATER
CENTRAL TENDENCY
OPERABLE UNIT 2
STERLING SITE 3
GREENBUSH, NEW YORK

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child and Adult

Medium	*Exposure Medium*	*Exposure Point*	*Chemical of Potential Concern*	*Carcinogenic Risk*					*Non-Carcinogenic Hazard Quotient*				
				Ingestion	*Inhalation*	*Dermal*	*External (Radiation)*	*Exposure Routes Total*	*Primary Target Organ(s)*	*Ingestion*	*Inhalation*	*Dermal*	*Exposure Routes Total*
Background Groundwater	Groundwater/ Ambient Air	Household Use	Iron	NC	NC	NC	–	NC	–	2.37E+00	NC	7.38E-03	2.38E+00
			Chemical Total	NC	NC	NC	–	NC		2.37E+00	NC	7.38E-03	2.38E+00
		Exposure Point Total						NC					2.38E+00
	Exposure Medium Total							NC					2.38E+00
Medium Total								NC					2.38E+00
Receptor Total							**Receptor Risk Total**	**NC**				**Receptor HI Total**	**2.4E+00**

Note:
NC = Not Calculated

TABLE C.16

SUMMARY OF FUTURE RESIDENT RISKS AND HAZARDS FOR COPCs IN BACKGROUND GROUNDWATER
REASONABLE MAXIMUM EXPOSURE
OPERABLE UNIT 2
STERLING SITE 3
GREENBUSH, NEW YORK

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child and Adult

Medium	*Exposure Medium*	*Exposure Point*	*Chemical of Potential Concern*	*Carcinogenic Risk*					*Non-Carcinogenic Hazard Quotient*				
				Ingestion	*Inhalation*	*Dermal*	*External (Radiation)*	*Exposure Routes Total*	*Primary Target Organ(s)*	*Ingestion*	*Inhalation*	*Dermal*	*Exposure Routes Total*
Background Groundwater	Groundwater/ Ambient Air	Household Use	Iron	NC	NC	NC	--	NC	--	6.78E+00	NC	4.47E-02	6.82E+00
			Chemical Total	NC	NC	NC	--	NC		6.78E+00	NC	4.47E-02	6.82E+00
		Exposure Point Total						NC					6.82E+00
	Exposure Medium Total							NC					6.82E+00
Medium Total								NC					6.82E+00
Receptor Total							**Receptor Risk Total**	**NC**				**Receptor HI Total**	**6.8E+00**

Note:
NC = Not Calculated

TABLE C.17

SUMMARY OF FUTURE RESIDENT RISKS AND HAZARDS FOR COPCs IN OU2 GROUNDWATER
CENTRAL TENDENCY
OPERABLE UNIT 2
STERLING SITE 3
GREENBUSH, NEW YORK

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child and Adult

Medium	*Exposure Medium*	*Exposure Point*	*Chemical of Potential Concern*	*Carcinogenic Risk*					*Non-Carcinogenic Hazard Quotient*				
				Ingestion	*Inhalation*	*Dermal*	*External (Radiation)*	*Exposure Routes Total*	*Primary Target Organ(s)*	*Ingestion*	*Inhalation*	*Dermal*	*Exposure Routes Total*
Groundwater	Groundwater/ Ambient Air	Household Use	Ethyl Ether	NC	NC	NC	--	NC	body weight	1.07E-01	NC	2.50E-03	1.09E-01
			Iron	NC	NC	NC	--	NC	--	3.01E+00	NC	9.38E-03	3.02E+00
			Chemical Total	NC	NC	NC	--	NC		3.12E+00	NC	1.19E-02	3.13E+00
		Exposure Point Total						NC					3.13E+00
	Exposure Medium Total							NC					3.13E+00
Medium Total								NC					3.13E+00
Receptor Total							**Receptor Risk Total**	**NC**				**Receptor HI Total**	**3.1E+00**

Total Body Weight HI Across All Media = 1.09E-01

Note:
NC = Not Calculated

TABLE C.18

SUMMARY OF FUTURE RESIDENT RISKS AND HAZARDS FOR COPCs IN OU2 GROUNDWATER
REASONABLE MAXIMUM EXPOSURE
OPERABLE UNIT 2
STERLING SITE 3
GREENBUSH, NEW YORK

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child and Adult

Medium	*Exposure Medium*	*Exposure Point*	*Chemical of Potential Concern*	*Carcinogenic Risk*					*Non-Carcinogenic Hazard Quotient*				
				Ingestion	*Inhalation*	*Dermal*	*External (Radiation)*	*Exposure Routes Total*	*Primary Target Organ(s)*	*Ingestion*	*Inhalation*	*Dermal*	*Exposure Routes Total*
Groundwater	Groundwater/ Ambient Air	Household Use	Ethyl Ether	NC	NC	NC	--	NC	body weight	2.38E-01	NC	6.77E-03	2.45E-01
			Iron	NC	NC	NC	--	NC	--	5.75E+00	NC	3.80E-02	5.79E+00
			Chemical Total	NC	NC	NC	--	NC		5.99E+00	NC	4.47E-02	6.04E+00
		Exposure Point Total						NC					6.04E+00
	Exposure Medium Total							NC					6.04E+00
Medium Total								NC					6.04E+00
Receptor Total							**Receptor Risk Total**	**NC**				**Receptor HI Total**	**6.0E+00**

Total Body Weight HI Across All Media = 2.45E-01

Note:
NC = Not Calculated

TABLE C.19

RISK ASSESSMENT SUMMARY FOR FUTURE RESIDENT EXPOSURE TO OU2 GROUNDWATER
REASONABLE MAXIMUM EXPOSURE
OPERABLE UNIT 2
STERLING SITE 3
GREENBUSH, NEW YORK

Scenario Timeframe: Future
Receptor Population: Resident
Receptor Age: Child and Adult

Medium	*Exposure Medium*	*Exposure Point*	*Chemical of Potential Concern*	*Carcinogenic Risk*					*Non-Carcinogenic Hazard Quotient*				
				Ingestion	*Inhalation*	*Dermal*	*External (Radiation)*	*Exposure Routes Total*	*Primary Target Organ(s)*	*Ingestion*	*Inhalation*	*Dermal*	*Exposure Routes Total*
Groundwater	Groundwater/ Ambient Air	Household Use	Ethyl Ether	NC	NC	NC	--	NC	body weight	2.38E-01	NC	6.77E-03	2.45E-01
			Iron	NC	NC	NC	--	NC	--	5.75E+00	NC	3.80E-02	5.79E+00
			Chemical Total	NC	NC	NC	--	NC		5.99E+00	NC	4.47E-02	6.04E+00
		Exposure Point Total						NC					6.04E+00
	Exposure Medium Total							NC					6.04E+00
Medium Total								NC					6.04E+00
Site Receptor Total				**OU2 Groundwater Receptor Risk Total**				**NC**	**OU2 Groundwater Receptor HI Total**				**6.0E+00**
Background Receptor Total				**Background Groundwater Receptor Risk Total**				**NC**	**Background Groundwater Receptor HI Total**				**6.8E+00**

Total Body Weight HI Across All Media = 2.45E-01

Note:
NC = Not Calculated

ATTACHMENT A

IRON STATISTICAL BACKGROUND COMPARISON

TABLE OF CONTENTS

LIST OF TABLES
(Following Text)

1.0 INTRODUCTION

Background comparisons were performed for total iron. Three tests were selected from applicable guidance documents (e.g., USEPA, 2002 and NAVFAC, 2004) to compare Operable Unit 2 (OU2) data to background data. The first test selected was the two sample *t*-test (Section 3.3.1.1 of USEPA, 2006), which tests for differences in the means of the OU2 and background concentration populations. This test assumes that both populations are normally distributed, or normal using a suitable transformation (e.g., log transformation). The second test used was the Wilcoxon Rank Sum (WRS) test (Section 3.3.2.1.1 of USEPA, 2006). This is a non-parametric test (i.e., rank-based) and tests for differences between the medians of the OU2 and background populations without making any distributional assumptions. Prior to carrying out the inter-group tests, descriptive statistical analyses were performed in order to determine the appropriate background tests to be used. If the background and OU2 data sets were both found to be normally or lognormally distributed, the *t*-test was used. Otherwise, the WRS test was used. The third test performed was the Quantile test (Section 3.3.2.1.2 of USEPA, 2006), which looks for differences in the tails of OU2 and background distributions. The Quantile test was applied in addition to the *t*-test and WRS test for all comparisons.

The findings of the statistical analyses are presented in Table 2 and are described below.

2.0 SCOPE OF DATA

OU2 data consisted of samples collected between 2001 and 2005. During this time period only four data points were available at background sampling locations. This number is low for group-based comparisons, and the background data set was therefore extended back to 1998 in order to include a total of eight background samples. To verify that the background data were consistent over this time period, a statistical trend test (the Mann-Kendall test) was performed. In applying the test, sample location was included as a factor, since data from two background wells (MW-4B and MW-5B) were present. Computational details for this test are provided in Sections 4.3.4.1 and 4.3.4.4 of USEPA, 2006.

3.0 RESULTS AND CONCLUSIONS

Results of the background trend tests are given in Table 1. No statistically significant trend in iron concentrations over time in the background data was observed, and all eight background samples were retained for OU2 vs. background comparisons. This background data set of eight samples included one non-detect (13 percent non-detect), and was found to be log-normally distributed. The OU2 data consisted of 41 observations with no non-detects, and was also log-normally distributed. Therefore, a two sample *t*-test was performed using log-transformed data. The *t*-test found no statistically significant difference (at 95 percent confidence) between means of the two populations (i.e., OU2 and background groundwater quality). The WRS test did not find any statistically significant difference (at 95 percent confidence) between background and OU2 samples. The Quantile test evaluating the tails of the distributions also did not find a statistically significance difference between total iron concentration in groundwater at the OU2 and background in all three quantiles.

Based on the results of the statistical tests performed, no evidence was found that iron concentrations in OU2 exceeded concentrations in background. Therefore, it is concluded that iron concentrations in OU2 are consistent with background.

4.0 REFERENCES

NAVFAC, 2004. Guidance for Environmental Background Analysis. Volume III: Groundwater. Naval Facilities Engineering Command. User's Guide UG-2059-ENV. Port Hueneme, California.

United States Environmental Protection Agency (USEPA), 2002. Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites (OSWER 9285.7-41). Office of Emergency and Remedial Response, United States Environmental Protection Agency, Washington, DC. EPA 540-R-01-003. September 2002.

United States Environmental Protection Agency (USEPA), 2006. Data Quality Assessment: Statistical Methods for Practitioners (EPA QA/G-9S). Office of Environmental Information, United States Environmental Protection Agency, Washington, DC. EPA/240/B-06/003. February 2006.

TABLE 1

TREND TEST RESULTS FOR BACKGROUND DATA
STERLING SITE 3
NEW YORK

Background Samples				*Mann-Kendall Test*						
Well MW-4B		*Well MW-5B*		*Test Statistic (S) by Location*		*Overall Test Statistic (S_k)*	*Pooled Standard Deviation (σ_{Sk})*	*Z_{Sk} for Overall Test*	*Probability*	*Conclusion*
Number of Samples	*Percentage of Non-Detects*	*Number of Samples*	*Percentage of Non-Detects*	*MW-4B*	*MW-5B*					
4	25%	4	0%	4	-6	-2	4.16	-0.240	0.810	No trend identified

TABLE 2

BACKGROUND COMPARISONS FOR TOTAL IRON
STERLING SITE 3
NEW YORK

(i) Initial Data Characterization

Background Samples			*OU2 Samples*		
Number of Samples	*Percentage of Non-Detects*	*Data Distribution*	*Number of Samples*	*Percentage of Non-Detects*	*Data Distribution*
8	13%	Logormal	41	0%	Logormal

(ii) Comparison of mean values -- *t*-test using log-transformed data

Background mean (Log units)	*OU2 mean (Log units)*	*Calculated t-statistic*	*Probability*	*Conclusion*
2.459	2.747	0.375	0.896	No significant difference

(iii) Comparison of median values -- Wilcoxon Rank-Sum Test

Background Average Rank-Sum	*OU2 Average Rank-Sum*	*U-Statistic*	*Probability*	*Conclusion*
25.76	21.13	0.402	195	No significant difference

(iv) Comparisons of tails (upper and lower values) of distributions -- Quantile Test

0.5 Quantile		*0.75 Quantile*		*0.9 Quantile*		*Conclusion*
Z-score	*Probability*	*Z-score*	*Probability*	*Z-score*	*Probability*	
0.84	0.201	-0.48	0.684	-0.86	0.806	No significant difference

Notes:

For descriptions of the tests performed, refer to report text and Chapter 3 of USEPA 2006.
All statistical tests were carried out at a 95 percent confidence level.

APPENDIX D

ESTIMATED COSTS FOR POTENTIAL REMEDIAL ALTERNATIVES

TABLE D.1

ESTIMATED COSTS FOR POTENTIAL REMEDIAL ALTERNATIVES
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Alternative / *Item*	*Unit*	*Estimated Quantity*	*Unit Cost*	*Cost*	*Unit Cost Notes*
1. No Action Alternative					
Operation and Maintenance Costs					
A. Inspections	l.s.	--	--	$ 5,000	
B. Reporting	l.s.	--	--	$ 2,000	
C. Review of Remedy					assumed that a review will be conducted every 5 years including limited sampling
i. Reporting	l.s.	--	--	$ 2,000	
ii. Groundwater Monitoring	l.s.	--	--	$ 800	assumes monitoring of 15 wells for extended Site-specific parameter list every 5 years
Subtotal				$ 9,800	
Scope and bid contingency (approx. 5% plus 10%)				$ 1,500	
Subtotal				$ 11,300	
Project Management (approx. 10%)				$ 1,100	
Technical Support (approx. 15%)				$ 1,700	
Subtotal				$ 14,100	
Present Worth O&M Costs (30 years at 7%)				$ 175,000	
Total Present Worth O&M Costs				**$ 175,000**	
Total Present Worth Cost (O&M Costs)				**$ 175,000**	

TABLE D.1

ESTIMATED COSTS FOR POTENTIAL REMEDIAL ALTERNATIVES
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Alternative / *Item*	*Unit*	*Estimated Quantity*	*Unit Cost*	*Cost*	*Unit Cost Notes*
2. Institutional Controls					
Capital Costs					
A. Deed restrictions	l.s.	–	–	$ 10,000	
Subtotal				$ 10,000	
Scope and bid contingency (approx. 5% plus 10%)				$ 1,500	
Subtotal				$ 11,500	
Project Management (approx. 10%)				$ 1,200	
Technical Support (approx. 15%)				$ 1,700	
Subtotal				**$ 14,400**	
Operation and Maintenance Costs					
A. Inspections	l.s.	–	–	$ 5,000	
B. Reporting	l.s.	–	–	$ 2,000	
C. Site Maintenance (fencing, monitoring wells)	l.s.	–	–	$ 2,000	
D. Semi-annual Groundwater Monitoring					
i. Reporting	l.s.	–	–	$ 3,000	assumes semi-annual reporting
ii. Semi-annual Groundwater Monitoring	l.s.	–	–	$ 9,000	assumes monitoring of 15 wells for extended Site-specific parameter list semi-annually
E. Review of Remedy	l.s.	–	–	$ 2,000	assumed that a review will be conducted every 5 years using semi-annual monitoring data
Subtotal				$ 23,000	
Scope and bid contingency (approx. 5% plus 10%)				$ 3,500	
Subtotal				$ 26,500	
Project Management (approx. 10%)				$ 2,700	
Technical Support (approx. 15%)				$ 4,000	
Subtotal				$ 33,200	
Present Worth O&M Costs (30 years at 7%)				$ 412,000	
Total Present Worth O&M Costs				**$ 412,000**	
Total Present Worth Cost (Capital O&M Costs)				**$ 426,000**	

TABLE D.1

ESTIMATED COSTS FOR POTENTIAL REMEDIAL ALTERNATIVES
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Alternative / *Item*	*Unit*	*Estimated Quantity*	*Unit Cost*	*Cost*	*Unit Cost Notes*
3. **Monitored Natural Attenuation**					
Capital Costs					
A. Deed restrictions	l.s.	–	–	$ 10,000	
B. Monitoring Well Installation	l.s.	–	–	$ 15,000	assumes two new wells will be installed
Subtotal				$ 25,000	
Scope and bid contingency (approx. 5% plus 10%)				$ 3,800	
Subtotal				$ 28,800	
Project Management (approx. 10%)				$ 2,900	
Technical Support (approx. 15%)				$ 4,300	
Subtotal				$ 36,000	
Operation and Maintenance Costs					
A. Inspections	l.s.	–	–	$ 5,000	
B. Reporting	l.s.	–	–	$ 2,000	
C. Site Maintenance (fencing, monitoring wells)	l.s.	–	–	$ 2,000	
D. Semi-annual Groundwater Monitoring					
i. Reporting	l.s.	–	–	$ 3,000	assumes semi-annual reporting
ii. Annual Groundwater Monitoring	l.s.	–	–	$ 1,500	assumes monitoring of 10 wells for Site-specific parameter list annually
iii. Biennial Groundwater Monitoring				$ 700	assumes monitoring of 10 wells for extended Site-specific parameter list biennially concurrent with every second annual round
E. Review of Remedy	l.s.	–	–	$ 2,000	assumed that a review will be conducted every 5 years using biennial monitoring data
Subtotal				$ 16,200	
Scope and bid contingency (approx. 5% plus 10%)				$ 2,400	
Subtotal				$ 18,600	
Project Management (approx. 10%)				$ 1,900	
Technical Support (approx. 15%)				$ 2,800	
Subtotal				$ 23,300	
Present Worth O&M Costs (30 years at 7%)				$ 289,100	
Total Present Worth O&M Costs				**$ 289,100**	
Total Present Worth Cost (Capital O&M Costs)				**$ 325,000**	

TABLE D.1

ESTIMATED COSTS FOR POTENTIAL REMEDIAL ALTERNATIVES
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Alternative / *Item*	*Unit*	*Estimated Quantity*	*Unit Cost*	*Cost*	*Unit Cost Notes*
4. In Situ Chemical Oxidation					
Capital Costs					
A. Deed restrictions	l.s.	--	--	$ 10,000	
B. Injection Well Installations	l.s.	--	--	$ 160,000	
Subtotal				$ 170,000	
Scope and bid contingency (approx. 5% plus 10%)				$ 25,500	
Subtotal				$ 195,500	
Project Management (approx. 10%)				$ 19,600	
Remedial Design (approx. 20%)				$ 39,100	
Technical Support (approx. 15%)				$ 29,300	
Subtotal				**$ 283,500**	
Operation and Maintenance Costs					
A. Inspections	l.s.	--	--	$ 5,000	
B. Reporting	l.s.	--	--	$ 2,000	
C. Site Maintenance (fencing, monitoring wells)	l.s.	--	--	$ 2,000	
D. Semi-annual Groundwater Monitoring					
i. Reporting	l.s.	--	--	$ 3,000	assumes semi-annual reporting
ii. Annual Groundwater Monitoring	l.s.	--	--	$ 2,900	assumes monitoring of 10 wells/locations for extended Site-specific parameter list annually
E. Review of Remedy	l.s.	--	--	$ 2,000	assumed that a review will be conducted every 5 years using biennial monitoring data
Subtotal				$ 16,900	
Scope and bid contingency (approx. 5% plus 10%)				$ 2,500	
Subtotal				$ 19,400	
Project Management (approx. 10%)				$ 1,900	
Technical Support (approx. 15%)				$ 2,900	
Subtotal				$ 24,200	
Present Worth O&M Costs (30 years at 7%)				**$ 300,300**	
F. Groundwater Injections	l.s.	--	--	$ 1,200,000	assume that the treatment occurs over first 2 years
Subtotal				$ 1,200,000	
Scope and bid contingency (approx. 5% plus 10%)				$ 180,000	
Subtotal				$ 1,380,000	
Project Management (approx. 10%)				$ 138,000	
Technical Support (approx. 15%)				$ 207,000	
Subtotal				$ 1,725,000	
Present Worth O&M Costs (2 years at 7%)				$ 3,118,800	
Total Present Worth O&M Costs				**$ 3,419,100**	
Total Present Worth Cost (Capital O&M Costs)				**$ 3,703,000**	

TABLE D.1

ESTIMATED COSTS FOR POTENTIAL REMEDIAL ALTERNATIVES
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Alternative / *Item*	*Unit*	*Estimated Quantity*	*Unit Cost*	*Cost*	*Unit Cost Notes*
5. Ex Situ Carbon Adsorption					
Capital Costs					
A. Deed restrictions	l.s.	--	--	$ 10,000	
B. Extraction Well Installations	l.s.	--	--	$ 20,000	assumes two new extraction wells will be installed
C. Forcemain Installation	ft.	2000	$ 70	$ 140,000	assumes that existing treatment building will be used
D. Culvert Installation	l.s.	--	--	$ 3,000	
E. Pump Installation	l.s.	--	--	$ 3,000	
Subtotal				$ 176,000	
Scope and bid contingency (approx. 5% plus 10%)				$ 26,400	
Subtotal				$ 202,400	
Project Management (approx. 10%)				$ 20,200	
Remedial Design (approx. 20%)				$ 40,500	
Technical Support (approx. 15%)				$ 30,400	
Subtotal				**$ 293,500**	
Operation and Maintenance Costs					
A. Inspections	l.s.	--	--	$ 5,000	
B. Reporting	l.s.	--	--	$ 2,000	
C. Site Maintenance (fencing, monitoring wells)	l.s.	--	--	$ 2,000	
D. Annual Groundwater Monitoring					
i. Reporting	l.s.	--	--	$ 3,000	assumes semi-annual reporting
ii. Semi-annual Groundwater Monitoring	l.s.	--	--	$ 2,900	assumes monitoring of 10 wells for extended Site-specific parameter list annually
E. Review of Remedy	l.s.	--	--	$ 2,000	assumed that a review will be conducted every 5 years using annual monitoring data
Subtotal				$ 16,900	
Scope and bid contingency (approx. 5% plus 10%)				$ 2,500	
Subtotal				$ 19,400	
Project Management (approx. 10%)				$ 1,900	
Technical Support (approx. 15%)				$ 2,900	
Subtotal				$ 24,200	
Present Worth O&M Costs (30 years at 7%)				$ 300,300	
F. Groundwater Treatment System operation	l.s.	--	--	$ 322,000	assume that the system operates for 2 years; part-time operator
G. Effluent Monitoring				$ 4,800	assume weekly effluent monitoring and monthly system monitoring of VOCs
Subtotal				$ 326,800	
Scope and bid contingency (approx. 5% plus 10%)				$ 49,000	
Subtotal				$ 375,800	
Project Management (approx. 10%)				$ 37,600	
Technical Support (approx. 15%)				$ 56,400	
Subtotal				$ 469,800	
Present Worth O&M Costs (2 years at 7%)				$ 849,400	
Total Present Worth O&M Costs				**$ 1,149,700**	
Total Present Worth Cost (Capital O&M Costs)				**$ 1,443,000**	

TABLE D.1

ESTIMATED COSTS FOR POTENTIAL REMEDIAL ALTERNATIVES
STERLING SITE 3
EAST GREENBUSH, NEW YORK

Alternative / *Item*	*Unit*	*Estimated Quantity*	*Unit Cost*	*Cost*	*Unit Cost Notes*

Notes:

- Real discount rate of 7%
- Site-specific parameter list is assumed to include ethyl ether, benzene,
- Extended Site-specific parameter list is assumed to includes nitrate, manganese, dissolved iron, sulfate, and methane.
- Period of analysis is 30 years for long-term monitoring and maintenance
- Scope and bid contingencies are 5% and 10% of costs, respectively
- Bid contingency is 15 percent of costs
- Project management is 10 percent of costs
- Remedial design is 20 percent of costs
- Technical support is 15 percent of costs
- Line item costs are rounded to the nearest $100 and total present worth costs are rounded to the nearest $1,000