SUPPLEMENTAL SITE INVESTIGATION REPORT AND QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT

NIAGARA CERAMICS
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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) conducted a Supplemental Site Investigation (SSI) at the Niagara Ceramics Site ("Site") located at 51 Hayes Place, Buffalo, New York. The Site location and Site layout are shown on Figures 1.1 and 1.2, respectively.

The SSI was conducted in accordance with the "Work Plan for Supplemental Site Investigation" (Work Plan) presented in the letter from R. Shepherd of CRA to J. Brown of Hodgson Russ dated March 1, 2006. The Work Plan was reviewed by the New York State Department of Environmental Conservation (NYSDEC) and additional work was incorporated into the final document based on the NYSDEC comments which followed the review.

1.1 PREVIOUS INVESTIGATIONS

Environmental Audits, Inc. conducted a Phase II Environmental Assessment at the Niagara Ceramics Site and the adjoining former Buffalo China warehouse facility in 2004. The investigative results for the Niagara Ceramics Site are summarized and discussed in Appendix A.

1.2 REPORT ORGANIZATION

This report presents a summary of the field activities conducted for the SSI and an assessment of the available data. The report is organized as follows:

- Section 1.0 - Introduction;
- Section 2.0 - Field Activities: A summary of the field activities completed during the SSI is presented in Section 2.0;
- Section 3.0 - Analytical Results: The analytical results obtained from soil and groundwater sampling conducted during the SSI are presented in Section 3.0;
- Section 4.0 - Qualitative Human Health Exposure Assessment: A qualitative assessment of the potential for exposure of humans at and in the vicinity of the Site to site-related contaminants is presented in Section 4.0; and
- Section 5.0 - Conclusions and Recommendations: Conclusions regarding subsurface conditions at the Niagara Ceramics Site and recommendations are presented in Section 5.0.

2.0 FIELD ACTIVITIES

The field activities of the SSI were conducted between May 1 and May 11, 2006. The activities completed consisted of soil sampling, groundwater sampling, and hydraulic monitoring. Details of these activities are presented in the following subsections.

2.1 SOIL SAMPLING

Seventeen soil borings, BH-1 through BH-17, were advanced during the SSI. Each boring was advanced to sampler refusal. Soil samples were collected continuously from each boring and logged for geologic record. The locations of the borings are shown on Figure 2.1. A summary of the boring locations, purpose of each boring, and analytical samples collected is presented in Table 2.1. Stratigraphic logs are presented in Appendix B.

In general, fill comprising a mixture of sand, gravel, silt, clay, brick, and slag, was encountered at all borehole locations to depths of up to 4 feet below ground surface (ft bgs), and was overlain by gravel or asphalt paving. Clay generally described as clay with silt (CL classification) or stiff clay (CH classification) was encountered below the fill through the full depth of each borehole (up to 16.9 ft bgs).

2.2 MONITORING WELL INSTALLATION

The Work Plan specified that up to four overburden groundwater monitoring wells would be installed at boring locations BH-1 through BH-4. Numerous underground utilities are located in the vicinity of BH-4. Due to these utilities, NYSDEC agreed that drilling with the larger diameter equipment required to install monitoring wells should not be attempted at this location. Therefore, with the approval of NYSDEC, the monitoring well was moved from BH-4 northwest approximately 100 ft to the location of BH-14.

As the field investigation progressed, NYSDEC requested that two additional monitoring wells (MW-8 and MW-9) be installed adjacent to borings BH-5 and BH-15 to further define the extent of presence of lead at elevated concentrations previously identified beneath the warehouse building.

The locations of the six monitoring wells installed during the SSI, as well as MW-1 through MW-3 installed previously, are shown on Figure 2.1. A summary of monitoring

well installation details is presented in Table 2.2. Stratigraphic and instrumentation logs are presented in Appendix B.

Following installation, each monitoring well was developed by surging and pumping to remove accumulated sediment.

2.3 HYDRAULIC MONITORING

Three complete rounds of water level measurements were collected following the completion of the well installation program. The water level measurements are summarized in Table 2.3. As shown in the table, the depth to groundwater varies from approximately 1.5 ft bgs at MW-9 to approximately 7.5 ft bgs at MW-6. Water level elevations range between approximately 11.7 feet at MW-6 to 18.0 feet at MW-9. The water level elevations measured on May 11, 2006, following well development and prior beginning purging for groundwater sampling, are shown on Figure 2.2.

2.4 GROUNDWATER SAMPLING

Groundwater samples were collected from the six newly installed monitoring wells on May 11, 2006. Wells were purged using a peristaltic pump operated at a low rate in order to prevent excessive drawdown. Well purging continued until consecutive readings of pH, conductivity, and temperature were within ±10 percent. Measurements of turbidity were collected as purging proceeded. Following completion of well purging, samples for analysis of volatile organic compounds (VOCs) were collected using well-dedicated bailers. At MW-8, samples for analyses of total and dissolved lead were also collected at the request of NYSDEC. The samples for lead analyses were collected directly into laboratory-supplied sample containers using the peristaltic pump with well-dedicated discharge tubing. A 45 micron in-line filter was added to the pump discharge tubing to filter samples for dissolved lead analyses. A groundwater sample collection and analysis summary is presented in Table 2.4.

3.0 ANALYTICAL RESULTS

The data received from the analytical laboratory have been reviewed for quality assurance purposes. A memorandum presenting the analytical data and results of the quality assurance review are presented in Appendix C.

3.1 SOIL

Tables 3.1 and 3.2, respectively, present summaries of the concentrations of lead and organic chemical compounds detected in soil samples collected during the SSI. The soil analytical data for the SSI are presented within the Quality Assurance Review in Appendix C.

As shown in Table 3.1, lead was detected in each of the 32 soil samples that were analyzed. Detected concentrations range from 0.47 milligrams per kilogram (mg/kg) to 9,250 mg/kg. The detected lead concentrations are greater than the draft Soil Cleanup Objectives (SCO) unrestricted use criterion[1] of 400 mg/kg in eight of 32 samples; BH-1 (0.5 to 1 ft), BH-2 (0 to 1 ft), BH-5 (0.5 to 1.2 ft), BH-7 (1.4 to 1.8 ft), BH-9 (0.5 to 1 ft), BH-15 (1.5 to 2 ft), and BH-16 (0.75 to 1.2 ft). The lead concentrations in the deeper sample intervals at BH-1, BH-5, BH-9, BH-15, and BH-16 are well below 400 mg/Kg, indicating that the depth of lead impact in soil is limited to depths up to 2 feet bgs.

In general, the detected concentrations of lead are greatest in the area between the Niagara Ceramics building and the Harrison Street warehouse[2], at BH-7, 1.4 to 1.8 ft (4,980 mg/kg) and BH-9, 0.5 to 1 ft (9,250 mg/kg). The maximum detected concentration of lead in soil sample locations on the north side of the Site, along the Conrail railroad tracks (BH-1, BH-15, BH-16, BH-17) was 804 mg/Kg. At sample locations along the south side of the Site (BH-3, BH-4, BH-11, BH-12, BH-13, BH-14), the detected lead concentrations are generally below 400 mg/kg, with the exception of BH-3, where lead was detected at 2,500 mg/kg at the 0.5- to 1-ft interval.

As shown in Table 3.2, detected VOCs include cis-1,2-Dichloroethene (cis-1,2-DCE), methylene chloride, tetrachloroethene (PCE), and trichloroethene (TCE). The detected

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1 Based on the proposed Soil Cleanup Objectives (SCO) presented in the draft 6 NYCRR Part 375 dated November 2005.

2 The Harrison Street warehouse refers to a building at the northwest end of the Niagara Ceramics facility, which was reportedly constructed as a mirror manufacturing facility by the Standard Mirror Co. in the early 1900's, and was apparently closed in the 1960s.

concentrations are below the draft SCO unrestricted use criteria with the exception of BH-5. At this location, the detected concentrations of cis-1,2-DCE and TCE in the shallow sample interval (1.6 to 2.5 ft) are 15,000 micrograms per kilogram (µg/kg) and 670,000 µg/kg, respectively. The detected concentrations of cis-1,2-DCE and TCE in the deeper sample interval (5.5 to 6.5 ft) are 1,200 µg/kg and 88,000 µg/kg, respectively, or approximately one order of magnitude lower. These data indicate a surface or near-surface source.

Also as shown in Table 3.2, various SVOCs, primarily including polynuclear aromatic hydrocarbons (PAHs) were detected in Site soils. In general, the detected concentrations are below the draft SCO unrestricted use criteria, with the exception of BH-12 and BH-13, located along the south side of the Site. The SVOCs which were detected at concentrations above the draft SCO unrestricted use criteria include benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene. The detected concentrations of SVOCs in Site soil are generally lower in the deeper sample intervals, indicating that the depth of SVOC impact is limited.

The investigative results and comparison of detected concentrations to screening criteria for industrial use are discussed further in Section 4.2.

3.2 GROUNDWATER

The groundwater samples collected during the SSI were analyzed for Target Compound List (TCL) VOCs. In addition, a groundwater sample from MW-8 was analyzed for total and dissolved lead. Table 3.3 presents a summary of the analytical data for groundwater samples collected during the SSI. The groundwater analytical data for the SSI are presented within the Quality Assurance Review in Appendix C.

As shown in Table 3.3, the detected VOCs in groundwater include 4-Methyl-2-pentanone, cis-1,2-DCE, methyl tert butyl ether, TCE, and vinyl chloride. The primary detected VOCs include TCE, and its daughter product cis-1,2-DCE. These chemicals were detected at MW-4, MW-5, and MW-6, in the area between the Niagara Ceramics building and the Harrison Street warehouse, with the greatest concentrations being detected at MW-6. Vinyl chloride was also detected at MW-6. The concentrations of VOCs were generally non-detect at MW-9, along the northern boundary, and at MW-7 to the south of the Niagara Ceramics building. TCE and cis-1,2-DCE were also detected at MW-8, located to the north of the Niagara Ceramics building, but at much lower concentrations compared to MW-5.

Lead was detected in groundwater at MW-8. The total concentration of lead reported in the sample from MW-8 was 46 micrograms per liter (µg/L); however, dissolved lead was not detected at this location at or above 3 µg/L. The turbidity of the sample collected from MW-8 was approximately 200 NTU indicating the presence of sediment in the samples. The elevated concentration of total lead is due to the sediment in the sample and is not indicative of groundwater quality.

The groundwater investigative results and comparison of detected concentrations to screening criteria are discussed further in Section 4.2.

4.0 QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT

4.1 GENERAL

A qualitative human health exposure assessment for the Niagara Ceramics Site has been prepared in accordance with the requirements of Draft DER-10 Technical Guidance for Site Investigation and Remediation, Appendix 3B, December 2002, and U.S. EPA risk assessment guidance, and is presented in the following subsections.

4.2 SITE CHARACTERIZATION

4.2.1 SITE DESCRIPTION

The Site is located at 51 Hayes Place in Buffalo, New York. The Site location and Site layout are shown on Figures 1.1 and 1,2, respectively, presented previously. The Site comprises approximately 8 acres and is bounded on the north by Conrail railroad tracks, on the east by the adjoining former Buffalo China warehouse and other commercial/industrial facilities, and on the south and west by residential properties. Interstate highway I-190 is located nearby to the south of the Site. The nearest water body is the Buffalo River, located approximately 1/4 to 1/2 mile south and east of the Site.

4.2.2 GENERAL SITE USE

The Site includes buildings, outdoor storage silos, and roadway and parking areas. The manufacturing building is a multi-story structure covering approximately 4 acres. This building is connected to the Buffalo China warehouse to the east. Another smaller building referred to as the Harrison Street warehouse is located on the northwest end of the Site, and covers an area of approximately 0.5 acres. The primary access to the Site is through the east side of the Site, near the Buffalo China warehouse.

4.2.3 PREVIOUS INVESTIGATIONS

Previous environmental investigations conducted at the Site are discussed in Section 1.1 and summarized in Appendix A.

4.2.4 NATURE AND EXTENT OF CONTAMINATION

The following sections provide brief discussions of the chemical distribution in surface soil, subsurface soil, and groundwater. Soil and groundwater sample locations are shown on Figure 2.1, presented previously.

Surface Soil

Surface soil conditions (up to approximately 2 ft bgs) exterior to Site buildings, are characterized by soil samples collected during the SSI from the locations listed below.

Borehole	*Depth (ft bgs)*	*Analytical parameters*
BH-1	0.5 - 1	Lead
BH-2	0 - 1	Lead
BH-3	0.5 - 1	Lead
BH-4	0.3 - 1.2	Lead
BH-5	0.5 - 1.2	Lead
BH-5	1.6 – 2.5	Lead, VOCs, SVOCs
BH-6	0 - 0.5	Lead
BH-6	1.5 - 2	VOCs, SVOCs
BH-7	0.5 - 1	Lead
BH-7	1.4 - 1.8	Lead
BH-8	0.5 - 1	Lead
BH-8	1.4 - 2.1	Lead, VOCs, SVOCs
BH-9	0.5 - 1	Lead
BH-10	0.5 - 1	Lead
BH-10	1.3 - 1.8	Lead
BH-11	0 - 0.5	Lead
BH-11	0.5 - 3	Lead
BH-12	0.3 - 1	Lead
BH-12	1.2 - 2.5	Lead, VOCs, SVOCs
BH-13	0.5 - 1.1	Lead, VOCs, SVOCs
BH-13	1.5 - 2.5	Lead, VOCs, SVOCs
BH-14	0.5 - 1.5	Lead
BH-15	1.5 - 2	Lead
BH-16	0.75 - 1.2	Lead
BH-17	0 - 0.5	Lead
BH-17	1 - 1.5	Lead

The results of the SSI indicate that surface soils are impacted with lead, VOCs, and SVOCs. At some of the sample locations, as discussed in Section 3.1, the detected concentrations are greater than the unrestricted site use criteria presented as part of the proposed Soil Cleanup Objectives (SCO) in the draft 6 NYCRR Part 375 dated November 2005.

The results from the previous (Phase II) investigation conducted in 2004 also indicate the presence of metals and organic chemicals in some soil samples at concentrations greater than the draft SCO unrestricted site use criteria. The Phase II results are provided in Appendix A. During the Phase II investigation a sample composite approach was used which resulted in large sample intervals and in some cases multiple boreholes being combined into a single analytical sample. The shallowest sample interval for which data are available is from 0 to 4 ft bgs. The Phase II investigation data are considered in the assessment of chemicals of potential concern, in Section 4.2.6.

Subsurface Soil

Subsurface soil conditions exterior to Site buildings are characterized by soil samples collected during the SSI from boreholes BH-1 through BH-17 (all depth intervals).

The results of the SSI indicate that subsurface soils are impacted with lead, VOCs, and SVOCs. At some sample locations, as discussed in Section 3.1, the detected concentrations are greater than the draft SCO unrestricted site use criteria. In general the detected concentrations of lead and SVOCs are higher in the shallow soil sample intervals (up to approximately 2 ft bgs), compared to the deeper sample intervals. The presence of VOCs in soil is relatively limited, primarily to BH-5. At this location, the shallow sample (1.6 to 2.5 ft bgs) concentrations were approximately one order of magnitude greater than the deeper interval (5.5 to 6.5 ft). At other locations, VOCs were generally not detected. Where detected, the analyte concentrations were relatively low.

As discussed above, the results from the Phase II investigation also indicate the presence of metals and organic chemicals in some soil samples at concentrations greater than the draft SCO unrestricted site use criteria. Some of the Phase II composite sample data are not considered useable for characterization purposes, e.g., samples that were composited from multiple boreholes for VOC analysis. The remaining data for exterior

sample locations[3] are considered in the assessment of chemicals of potential concern, in Section 4.2.6.

Groundwater

Groundwater conditions at the Site are characterized by groundwater samples collected during the SSI from wells MW-4, MW-5, MW-6, MW-7, and MW-8.

The results of the SSI indicate that groundwater is impacted with TCE, cis-1,2-DCE, and vinyl chloride in the area between the Niagara Ceramics building and the Harrison Street warehouse. The groundwater impact appears to extend from the vicinity of MW-5, toward the site boundary at MW-6. Based on the direction of groundwater flow, the impacted groundwater at MW-6 may extend off-site in a southerly direction. Groundwater at MW-8, located on the northern side of the Niagara Ceramics building was also found to be impacted with TCE and cis-1,2-DCE. Lead (total) was detected at MW-8, but was not detected in the dissolved sample analysis.

4.2.5 CONCEPTUAL SITE MODEL

In order to evaluate the significance of the impacted media at the Site, the potential pathways by which individuals may come in contact with these media 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 is assessed in what is defined by the Conceptual Site Model (CSM).

Based on the current land use and the anticipated future land use of the Site the following potential receptors, as summarized in the CSM presented in Table 4.1, may be exposed to site media:

- Trespasser (current/future);
- Industrial Worker (current/future); and
- Construction Worker (future).

[3] The Phase II investigation conducted in 2004 included collection of soil samples from boreholes within building interiors, which were advanced through building floors into underlying soil. These data are included in Appendix A but are not used as part of this assessment.

Impacted media at the site include surface soil, subsurface soil, and groundwater. Air is also considered an impacted medium based on the soil and groundwater impacts due to the potential for vapor release into ambient and/or indoor air. Groundwater beneath the Site is not currently used as potable drinking water source. The potable water for the Site and the surrounding area is currently supplied by a municipal source and this is expected to continue. However, groundwater may be encountered by a construction/utility worker during ground intrusive activities. Ingestion, dermal contact, and inhalation are the potential routes of exposure. All of these factors are evaluated in the CSM.

4.2.6 SELECTION OF CHEMICAL OF POTENTIAL CONCERN (COPC)

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

The selection of COPCs for each medium was completed using a screening process involving a comparison of the maximum detected concentration of each contaminant in a specific medium to a risk-based concentration associated with target risks and conservative default exposure assumptions.

The most up-to-date risk-based concentrations (RBCs) from U.S. EPA Region III (Region III Risk-Based Concentration (R3-RBC) Table, Soil Industrial, April 11, 2006), and the Soil Cleanup Objectives (SCO) for industrial use presented in the draft 6 NYCRR Part 375 dated November 2005, were used to identify COPCs in soil. As stated in Part 375-1.1, the SCOs are intended to be applicable to all remedial programs for inactive hazardous waste disposal sites, remedial programs for brownfield sites, and/or remedial programs for environmental restoration projects. In addition, U.S. EPA Region IX Preliminary Remediation Goals (PRGs) for Industrial Soil were used when R3-RBCs or SCOs were not available.

COPCs in groundwater were identified based on a comparison to: NYSDOH maximum contaminant levels (MCLs) for public water systems; Ambient Water Quality Standards and Groundwater Effluent Limitations from NYSDEC Division of Water Technical; and, Operational Guidance Series, and U.S. EPA Region III (Region III Risk-Based Concentration (R3-RBC) Table, Tap Water, April 11, 2006.

In addition, COPCs in soil and groundwater were identified based on a comparison to U.S. EPA Draft Guidance for Evaluation of the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils, U.S. EPA, November 2005.

Surface Soil

The on-Site surface soil screening criteria were the U.S. EPA Region III RBCs for industrial use (based on ingestion), and the proposed SCOs for industrial use from the draft 6 NYCRR Part 375 (based on the ingestion, dermal contact, and inhalation exposure pathways). As presented in Table 4.2, TCE, benzo(a)pyrene, dibenz(a,h)anthracene, arsenic, and lead were detected at maximum concentrations greater than the conservative screening criteria, and therefore were identified as COPCs.

Soil

The on-Site soil screening criteria were the U.S. EPA Region III RBCs for industrial use (based on ingestion), and the proposed SCOs for industrial use from the draft 6 NYCRR Part 375 (based on the ingestion, dermal contact, and inhalation exposure pathways). As presented in Table 4.3, trichloroethene, benzo(a)pyrene, dibenz(a,h)anthracene, arsenic, and lead were detected at maximum concentrations greater than the conservative screening criteria, and therefore were identified as COPCs.

Soil-to-Indoor Air

Currently, screening criteria for soil-to-indoor air are not available. Therefore, as shown in Table 4.4, all detected volatile compounds as defined by U.S. EPA (2002) were identified as COPCs for the soil within 100 ft of the existing buildings consistent with U.S. EPA (2002) guidance, due to a lack of screening criteria.

Groundwater

The on-Site groundwater screening criteria were the NYSDOH maximum contaminant levels (MCLs) for public water systems (based on the ingestion exposure pathway); Ambient Water Quality Standards and Groundwater Effluent Limitations from NYSDEC Division of Water Technical and Operational Guidance Series; and U.S. EPA Region III (Region III Risk-Based Concentration (R3-RBC) Table, Tap Water, April 11, 2006 (based on the ingestion and inhalation exposure pathways). As presented in Table 4.5, cis-1,2-DCE, TCE, vinyl chloride, and lead (total) were detected at maximum concentrations greater than the screening criteria and therefore were identified as

COPCs. However, since the Site groundwater is not used for potable supply the comparison to drinking water criteria is conservative.

Groundwater –to-Indoor Air

The on-Site groundwater-to-indoor air screening criteria were the Generic Screening Levels, based on a cancer risk of 1×10^{-6} and a non-cancer hazard quotient of 1, U.S. EPA Draft Guidance for Evaluation of the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils, U.S. EPA, November 2005. As presented in Table 4.6, cis-1,2-DCE, TCE, and vinyl chloride were detected at maximum concentrations greater than the screening criteria and therefore were identified as COPCs.

4.3 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 mechanisms 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.

The qualitative human health exposure assessment addresses the first two objectives. The quantification of exposure is addressed in subsequent stages of the Human Health Risk Assessment (HHRA), as required.

4.3.1 CHARACTERIZATION OF EXPOSURE SETTING

As part of the assessment 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 4.2. 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 below.

Current Land Use

The Site is currently occupied by Niagara Ceramics and is used for manufacture of ceramic products. The current potentially exposed population includes Site (industrial) workers, and persons who may trespass on the Site.

Future Land Use

It is reasonable to assume that the Site will remain under the current land use for the foreseeable future. Future maintenance or construction activities on the Site may necessitate some below-grade excavation. The future potentially exposed population includes Site (industrial) workers, construction/utility workers, and persons who may trespass on the Site.

4.3.2 IDENTIFICATION OF POTENTIAL EXPOSURE PATHWAYS

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site[4]. An exposure pathway is complete (i.e., it could result in a receptor contacting a COPC) if the following elements are present:

1. A source or a release from a source (e.g., COPCs released to soil due to historical releases during plant 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., surface and subsurface soil).
4. A route by which a site-related COPC may enter a potential receptor's body (e.g., ingestion, dermal contact, or inhalation).
5. A receptor population which is potentially exposed.

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

[4] As described in Draft DER-10, Appendix 3B, an exposure pathway has five elements: (1) a contaminant source; (2) contaminant release and transport mechanisms; (3) a point of exposure; (4) a route of exposure; and (5) a receptor population.

The first element, a source or release from a source, is satisfied at the Site, as previously indicated in Section 4.2. The remaining elements are described in the following subsections.

4.3.2.1 FATE AND TRANSPORT IN RECEIVING MEDIA

Many complex factors control the partitioning of a COPC in the environment; thus measured concentrations only represent Site conditions at a discrete point in time. An understanding of the general fate and transport characteristics of the COPCs is important when predicting future exposure, linking sources with currently contaminated media, and identifying potentially complete pathways to Site media. Therefore, the fate and transport analysis conducted at this stage of the exposure assessment is not intended to provide a quantitative evaluation of media-specific COPC concentrations; it is meant to identify media that are likely to receive Site-related COPCs.

The concentration and distribution of COPCs in the environment are constantly subject to change due to dispersal by wind and water, and chemical and biological degradation by microorganisms. Once released to the environment, COPCs can partition between air, water, sediment, soil, and biota, and be subsequently subjected to one or more of the following processes:

1. Transportation (e.g., convection by wind or water).
2. Physical transformation (e.g., volatilization, precipitation).
3. Chemical transformation (e.g., photolysis, hydrolysis, oxidation, reduction).
4. Biological transformation (e.g., biodegradation, metabolization by plants or animals).
5. Accumulation in one or more media.

Several transport mechanisms, such as advection and dispersion, are controlled primarily by the physical characteristics of the Site, and thus are essentially the same for all COPCs. However, other transport and transformation processes, such as volatilization, sorption, and biodegradation, depend on certain physical and chemical properties and, therefore, vary for each COPC.

The following section provides a fate and transport evaluation to determine the relative significance of the release sources and mechanisms.

4.3.2.1.1 POTENTIAL MIGRATION OF SOIL OR GROUNDWATER COPCs TO AIR

During ground intrusive activity, such as excavating soil for utility trenching or general construction, volatile COPCs could volatilize into ambient air and be inhaled by a construction/utility worker. Also, COPCs that adhere to soil particles, such as metals, may become suspended in the air column and could also be inhaled by the construction/utility worker. During potential future excavation activities, groundwater may accumulated or pool in the bottom of the excavation, therefore direct contact of the groundwater by a construction/utility worker would be considered to be a complete exposure pathway. COPCs present in surface soil can volatilize or adhere to soil particles and could be inhaled by the trespasser and industrial worker present on Site.

Volatile COPCs in soil and groundwater may volatilize and migrate into the indoor air of a building constructed over impacted soil and groundwater. Thus, exposure to indoor air concentrations resulting from the soil and groundwater impact is a potential complete exposure pathway for the industrial worker.

4.3.2.2 POTENTIAL EXPOSURE POINTS

After contaminated or potentially contaminated media have been identified, the exposure points are determined by identifying whether or not the potentially exposed population can contact these media.

The exposure pathway for direct contact with COPCs present in soil is potentially complete, where soils are not under pavement.

The exposure pathway for ambient air inhalation of volatile chemicals from impacted groundwater is potentially complete. However, the groundwater-to-ambient air exposures are generally considered *de minimis* for industrial workers and trespassers as volatile chemicals are significantly diluted upon release to ambient air.

4.3.2.3 POTENTIAL EXPOSURE ROUTES

Potential exposure routes are identified by: i) determining the COPC sources and receiving media, ii) analyzing the movement of the COPCs from the source, and iii) determining the possible exposure points.

Humans can be exposed to a variety of contaminated media, including soil, groundwater, surface water, sediment, air, and biota that has contact with other contaminated media. Based on the physical conditions of the Site, potential exposure routes associated with Site soil include incidental ingestion, direct dermal contact, and inhalation (airborne particulate and/or vapors). Potential exposure routes associated with Site groundwater include incidental ingestion, direct dermal contact, and inhalation (vapors).

4.3.2.4 EXPOSURE SCENARIOS AND COMPLETED EXPOSURE PATHWAYS

Based on an understanding of the components of an exposure pathway and the current/future conditions of the Site, human exposure pathways were identified in the assessment. The potential human populations considered relevant to the assessment include site industrial workers, workers involved in general construction activities or utility excavations, and trespassers.

Based on these assumptions and the results of the media-specific screening presented in Section 4.2.6, the exposure scenarios and pathways quantified in the assessment are summarized in Table 4.1. The Conceptual Site Model shown in Table 4.1 presents a summary of the exposure media, exposure pathways, exposure routes, and exposed receptors considered in this assessment. The following media and potential human exposures (i.e., complete pathways) have been identified:

1. On-Site Surface Soil – Current/Future Condition:
    - dermal contact with surface soil by trespasser and industrial workers;
    - incidental ingestion of surface soil by trespasser and industrial workers; and
    - inhalation of airborne particulate and vapors originating from surface soil by trespasser and industrial worker.
2. On-Site Soil – Current/Future Condition:
    - inhalation of volatile vapors in indoor air originating from soil by industrial worker.
3. On-Site Soil – Future Condition:
    - dermal contact with soil by construction/utility workers;
    - incidental ingestion of soil by construction/utility workers; and
    - inhalation of airborne particulate and vapors originating from soil by construction/utility workers.

4. On-Site Groundwater – Current/Future Condition:

   - inhalation of volatile vapors in indoor air originating from groundwater by industrial workers; and
   - inhalation of volatile vapors in ambient air originating from groundwater by industrial workers and trespassers.

5. On-Site Groundwater – Future Condition:

   - dermal contact with groundwater by construction/utility workers;
   - incidental ingestion of groundwater by construction/utility workers; and
   - inhalation of volatile vapors by construction/utility workers.

4.4 SUMMARY

As discussed in the preceding section, the qualitative exposure assessment identified media and potential human exposure for on-Site soil (through dermal contact, incidental ingestion, and inhalation of particulate and volatile vapors), and on-Site groundwater (through dermal contact, incidental ingestion, and inhalation of volatile vapors). The potentially exposed receptors include Site workers (industrial workers and construction/utility workers) and persons that may trespass onto the Site.

As discussed in Section 4.2.6, COPCs were identified by comparison of maximum detected concentrations to conservative screening criteria for soil and groundwater. The identified COPCs for soil include TCE, benzo(a)pyrene, dibenz(a,h)anthracene, arsenic, and lead. Additional volatile compounds are flagged as COPCs for the soil-to-indoor air pathway. The identified COPCs for groundwater include cis-1,2-DCE, TCE, vinyl chloride, and lead.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS

Based on the results of the Supplemental Site Investigation and the Qualitative Human Health Exposure Assessment for the Niagara Ceramics Site, the following conclusions are made:

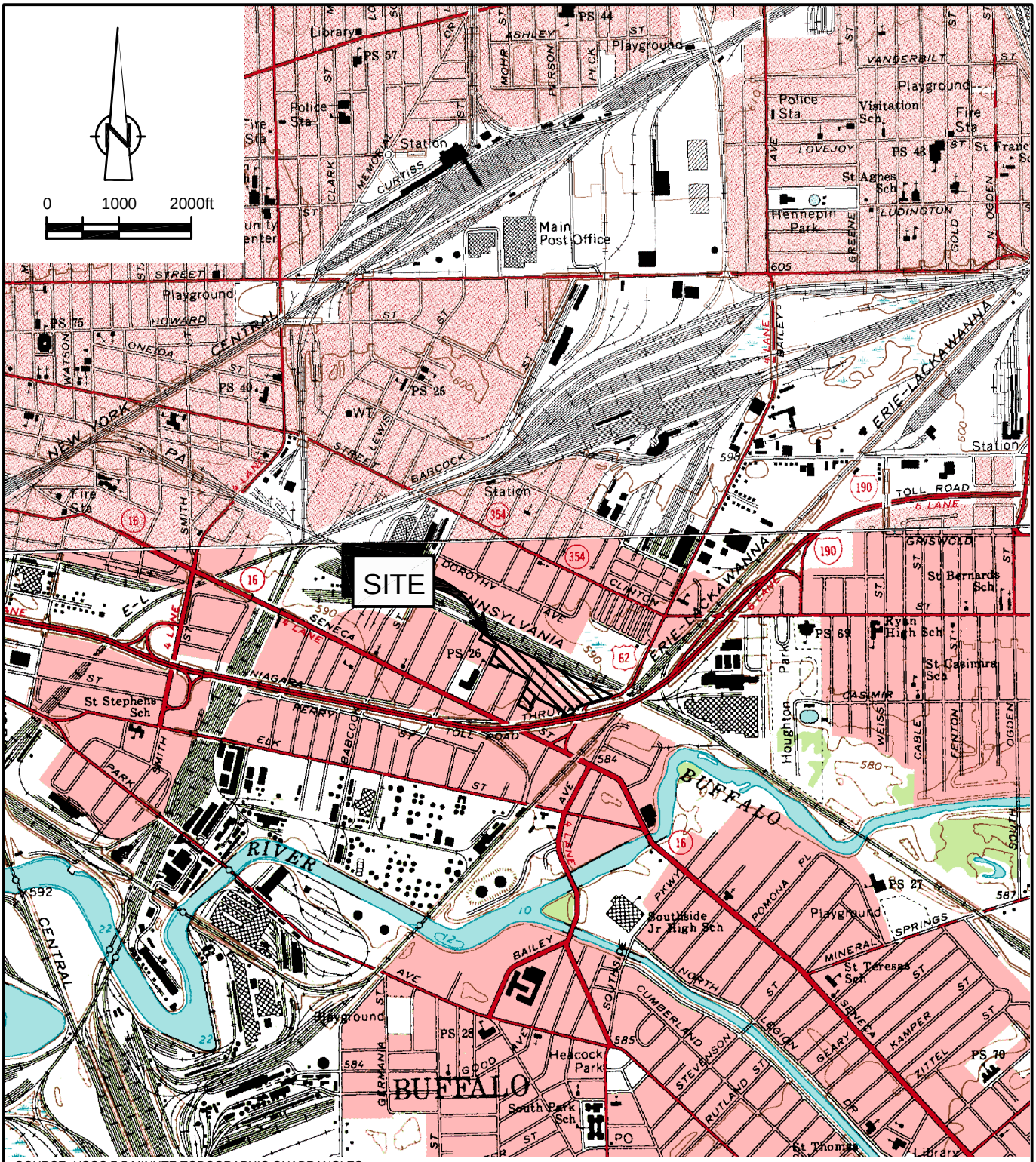
1. The borehole investigation identified the presence of fill material to depths of up to 4 ft bgs, comprising soil, brick, and slag. The fill material is underlain by fine-grained soil, i.e., clay with silt. Borehole refusal occurred within the fine-grained soils, at depths of up to approximately 17 ft bgs.
2. Analytical data for soil samples identified the presence of lead, VOCs, and SVOCs. The chemical impacts are primarily found in shallow soil/fill material. The chemical concentrations are significantly reduced in the underlying sample intervals.
3. Groundwater was found within monitoring wells installed within the fill/clay material. The depth to groundwater varies from approximately 1 to 7.5 ft bgs. Water level data indicate that the groundwater hydraulic gradient is southerly. The fine-grained soil conditions present an impediment to groundwater flow.
4. Analytical data for groundwater samples identified the presence of VOCs at on-Site monitoring wells. The most frequently detected VOCs are TCE and cis-1,2-DCE. The greatest VOC concentrations were detected at MW-5, located in the area between the Niagara Ceramics building and the Harrison Street warehouse, and at MW-6, located to the south of MW-5 near the property boundary. At MW-8, lead was detected in the unfiltered sample (total lead analysis), but was not detected in the filtered sample (dissolved lead analysis).
5. The qualitative exposure assessment identified media and potential human exposure for on-Site soil (through dermal contact, incidental ingestion, and inhalation of particulate and volatile vapors), and on-Site groundwater (through dermal contact, incidental ingestion, and inhalation of volatile vapors). The potentially exposed receptors include Site workers (industrial workers and construction/utility workers) and persons that may trespass onto the Site. Potential human exposure can be addressed using remedial or other methods to eliminate exposure pathways and/or provide worker protection.
6. COPCs were identified by comparison of maximum detected concentrations to conservative screening criteria for soil and groundwater. The identified COPCs for soil include TCE, benzo(a)pyrene, dibenz(a,h)anthracene, arsenic, and lead. Additional volatile compounds are flagged as COPCs for the soil-to-indoor air

pathway. The identified COPCs for groundwater include cis-1,2-DCE, TCE, vinyl chloride, and lead.

5.2 RECOMMENDATIONS

Based on the above, the following recommendations are made:

1. An evaluation should be undertaken to identify and assess alternative methods to address potential current and future human exposure to impacted media in on-Site outdoor areas, for industrial workers, construction/utility workers, and trespassers.
2. A quantitative assessment should be conducted for potential indoor air exposure for on-Site workers related to vapor intrusion of volatile compounds.



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLES;
BUFFALO NE, NY. (N4252.5-W7845/7.5) DATED ON 1965
BUFFALO SE, NY. (N4245-W7845/7.5) DATED ON 1965

figure 1.1

SITE LOCATION MAP
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
Buffalo, New York

37191-00(002)GN-WA004 JUN 08/2006

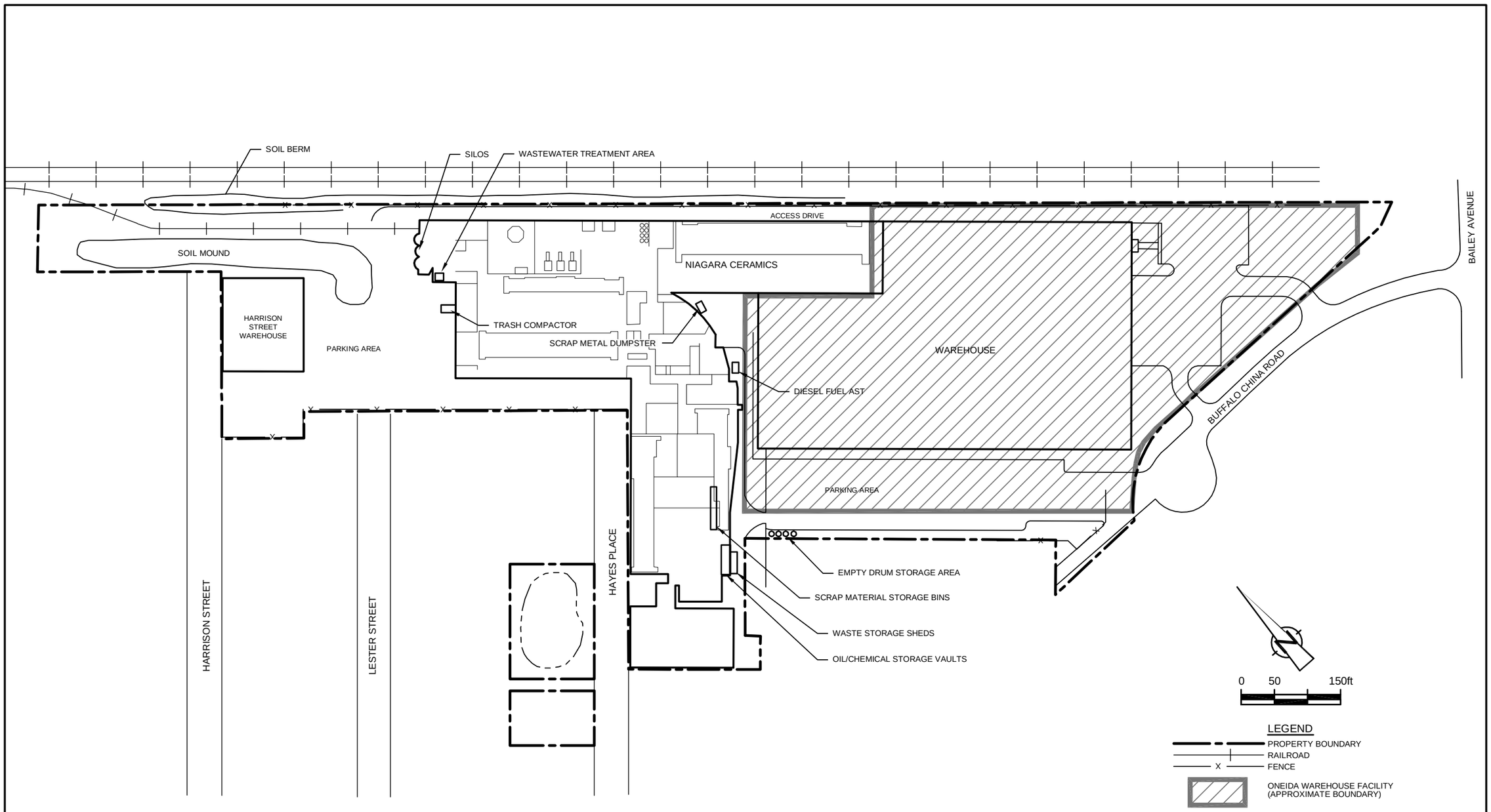


figure 1.2

SITE PLAN
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
Buffalo, New York

SOURCE: ENVIRONMENTAL AUDITS, INC., PROJECT 0333 DRAWING NO. 1, MARCH 2004.

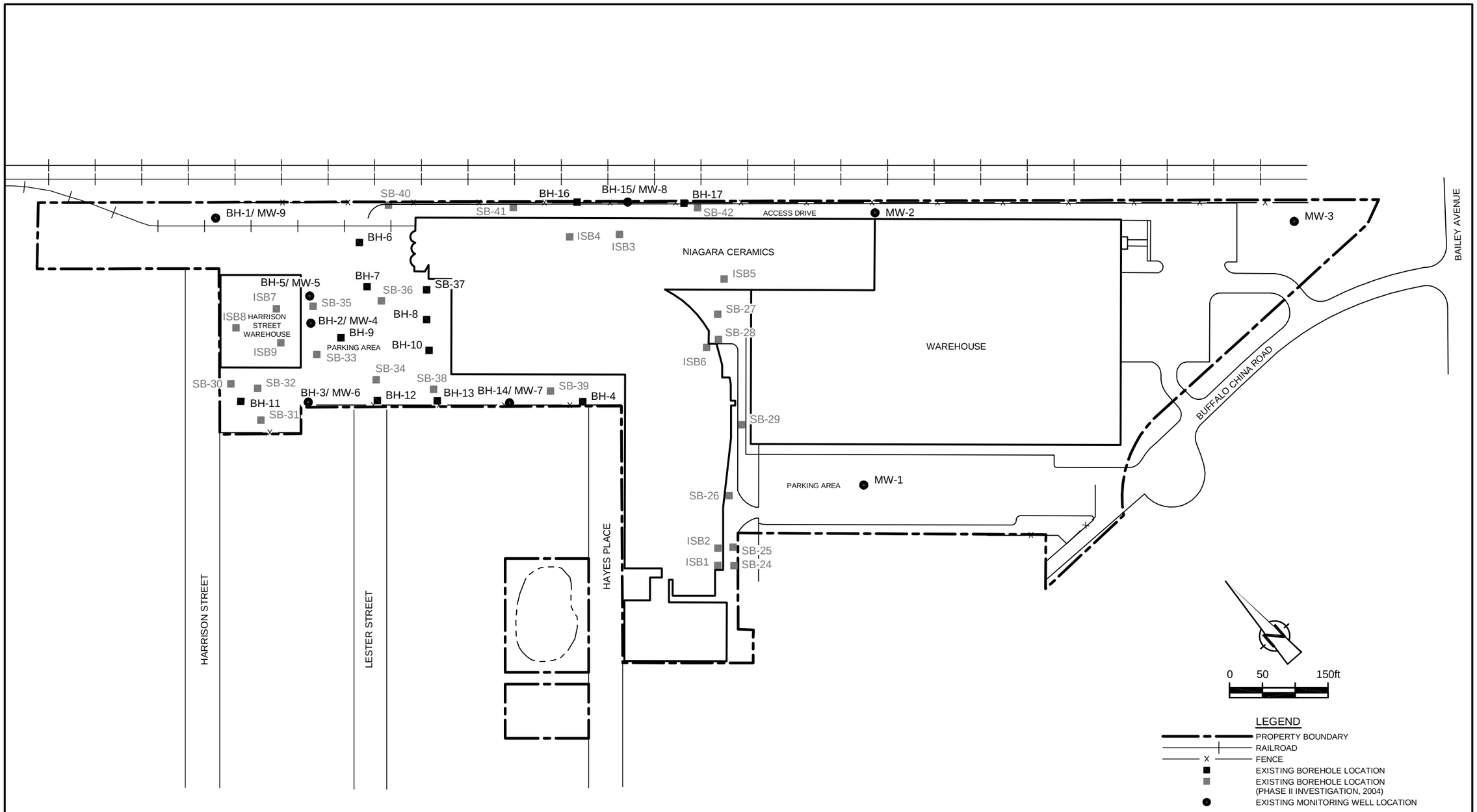


figure 2.1

SOIL BORING AND MONITORING WELL LOCATIONS
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
Buffalo, New York

SOURCE: ENVIRONMENTAL AUDITS, INC., PROJECT 0333 DRAWING NO. 1, MARCH 2004.

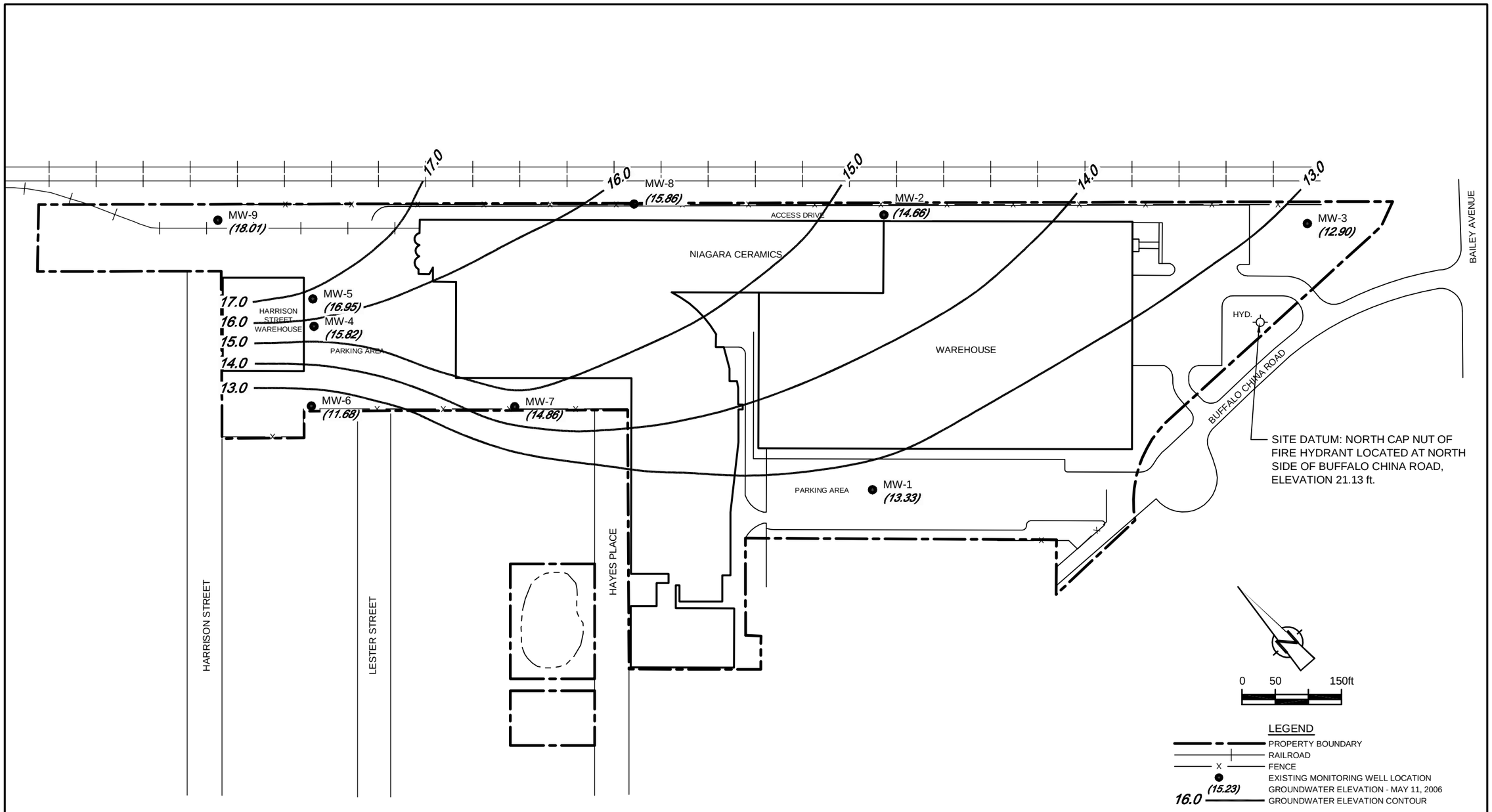


figure 2.2

WATER LEVEL ELEVATIONS AND CONTOURS
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
Buffalo, New York

SOURCE: ENVIRONMENTAL AUDITS, INC., PROJECT 0333 DRAWING NO. 1, MARCH 2004.

37191-00(002)GN-WA003 JUN 28/2006

TABLE 2.1

SUMMARY OF SOIL BORINGS AND SAMPLE COLLECTION AND ANALYSIS DETAILS
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

Borehole No.	*Area*	*Sample Depth (ft. bgs) and Analysis Parameters*			*Purpose*
		Surface Soil	*Fill Material*	*Native Soil*	
BH-1	Northern area of Site, alongside railroad tracks	0.5 - 1.0 Lead	2.0 - 2.4 Lead	-	Characterize soil conditions near railroad tracks
BH-2	Parking area, outside Harrison Street Warehouse	0 - 1.0 Lead	No Recovery 2-4', native @ 4'	8.0 - 10.0 VOCs, SVOCs	Further characterize the soil near SB-35 (VOCs) and SB-36 (SVOCs)
BH-3	Parking area, outside Harrison Street Warehouse	0.5 - 1.0 Lead	2.0 - 3.0 Lead, VOCs, SVOCs	4.0 - 5.0 VOCs, SVOCs	Characterize soil conditions to the south of SB-33 and SB-35 (near SB-32, which was composited with SB-30, 31)
BH-4	Roadway, outside main plant	0.3 - 1.2 Lead	2.3 - 3.0 Lead	-	Characterize soil conditions at south side of plant
BH-5	Parking area	0.5 - 1.2 Lead	1.6 - 2.5 Lead, VOCs	5.5 - 6.5 VOCs	Characterize soil conditions in parking area near soil mound
BH-6	Between Harrison Street Warehouse and NC Plant	0 - 0.5 Lead	No fill present	1.5 - 2.0 VOCs, SVOCs	Characterize soil conditions to the north of SB-36
BH-7	Parking area	0.5 - 1.0 Lead	1.4 - 1.8 Lead	-	Characterize soil conditions in parking lot
BH-8	Parking area, west side of plant	0.5 - 1.0 Lead	1.4 - 2.1 Lead, VOCs, SVOCs	2.9 - 3.3 VOCs, SVOCs	Characterize soil conditions adjacent to plant
BH-9	Parking area	0.5 - 1.0 Lead	2.0 - 2.5 Lead	-	Characterize soil conditions in parking area
BH-10	Parking area	0.5 - 1.0 Lead	1.3 - 1.8 Lead	-	Characterize soil conditions in parking area

TABLE 2.1

SUMMARY OF SOIL BORINGS AND SAMPLE COLLECTION AND ANALYSIS DETAILS
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

Borehole No.	*Area*	*Sample Depth (ft. bgs) and Analysis Parameters*			*Purpose*
		Surface Soil	*Fill Material*	*Native Soil*	
BH-11	Area south of Harrison Street Warehouse	0 - 0.5 Lead	0.5 - 3.0 Lead	-	Characterize soil conditions near SB-30, SB-31
BH-12	Between Harrison Street Warehouse and NC Plant	0.3 - 1.0 Lead	1.2 - 2.5 Lead, VOCs, SVOCs	4.5 - 5.0 VOCs, SVOCs	Characterize soil conditions to the south of SB-35 and SB-36
BH-13	West side of plant	0.5 - 1.1 Lead	1.5 - 2.5 Lead, VOCs, SVOCs	4.0 - 5.0 VOCs, SVOCs	Characterize soil conditions adjacent to plant
BH-14	Roadway, outside main plant	0.5 - 1.5 Lead	2.5 - 3.0 Lead	-	Characterize soil conditions at south side of plant
BH-15	North of plant	1.5 - 2.0 Lead	3.0 - 3.5 Lead	-	Characterize soil conditions at north side of plant
BH-16	North of plant	0.75 - 1.2 Lead	2.5 - 3.2 Lead	-	Characterize soil conditions at north side of plant
BH-17	North of plant	0 - 0.5 Lead	1.0 - 1.5 Lead	-	Characterize soil conditions at north side of plant

Notes:

- Not applicable.
SVOCs Semi-Volatile Organic Compounds.
VOCs Volatile Organic Compounds.

TABLE 2.2

SUMMARY OF MONITORING WELL INSTALLATION DETAILS
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

Well No.	*Date of Installation*	*Top of Casing Elevation* [(1)]	*Total Depth (feet bgs)*	*Sandpack Interval*		*Screened Interval*	
				Feet bgs	*Elevation* [(1)]	*Feet bgs*	*Elevation* [(1)]
MW-1	Feb/05	20.12	13.0	8.9 to 15.2	11.2 to 4.9	8.9 to 15.2	11.2 to 4.9
MW-2	Feb/05	18.97	14.0	8.4 to 14.9	10.6 to 4.1	8.9 to 13.9	10.1 to 5.1
MW-3	Feb/05	19.66	10.0	10.6 to 17.1	9.1 to 2.6	11.1 to 16.1	8.6 to 3.6
MW-4	May/06	21.12	11.3	4.0 to 10.0	17.1 to 11.1	5.0 to 10.0	16.1 to 11.1
MW-5	May/06	21.55	8.0	1.0 to 10.0	20.6 to 11.6	5.0 to 10.0	16.6 to 11.6
MW-6	May/06	19.18	8.0	3.7 to 9.7	15.5 to 9.5	4.7 to 9.7	14.5 to 9.5
MW-7	May/06	17.00	8.7	3.2 to 8.7	13.8 to 8.3	3.7 to 8.7	13.3 to 8.3
MW-8	May/06	18.92	16.9	3.3 to 8.5	15.6 to 10.4	3.5 to 8.5	15.4 to 10.4
MW-9	May/06	19.63	7.5	1.5 to 7.0	18.1 to 12.6	2.0 to 7.0	17.6 to 12.6

Notes:

(1) Elevation based on Site datum. (North cap nut on fire hydrant located on north side of Buffalo China Road, elevation 21.13 feet.)

bgs Below Ground Surface.

TABLE 2.3

SUMMARY OF GROUNDWATER LEVEL ELEVATIONS
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

		May 5, 2006		*May 8, 2006*		*May 11, 2006*	
Well ID	*Top of Casing Elevation* [1]	*Depth to Water (feet)*	*Water Level Elevation*	*Depth to Water (feet)*	*Water Level Elevation*	*Depth to Water (feet)*	*Water Level Elevation*
MW-1	20.12	N/A	N/A	6.74	13.38	6.79	13.33
MW-2	18.97	4.26	14.71	4.33	14.64	4.31	14.66
MW-3	19.66	6.73	12.93	6.75	12.91	6.76	12.90
MW-4	21.12	5.02	16.10	5.22	15.90	5.30	15.82
MW-5	21.55	4.14	17.41	4.39	17.16	4.60	16.95
MW-6	19.18	7.85	11.33	7.35	11.83	7.50	11.68
MW-7	17.00	1.78	15.22	1.80	15.20	2.14	14.86
MW-8	18.92	4.26	14.66	2.97	15.95	3.06	15.86
MW-9	19.63	1.22	18.41	1.25	18.38	1.62	18.01

Notes:

N/A Not Accessible.
(1) Elevation based on Site datum. (North cap nut on fire hydrant located on north side of Buffalo China Road, elevation 21.13 feet.)

TABLE 2.4

GROUNDWATER SAMPLE COLLECTION AND ANALYSIS SUMMARY
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

Well ID	*Well Volume Gallons*	*Well Volumes Purged*	*pH s.u.*	*Conductivity µs/cm*	*Turbidity NTU*	*Temperature °C*	*Sample Analyses*	*Comments*
MW-4	0.92	1	7.35	1640	175	11.8	VOC	
		2	7.42	1650	180	12.4		
		3	7.40	1650	172	12.3		
MW-5	0.84	1	7.35	1640	175	11.8	VOC	Duplicate Sample Collected
		2	7.42	1650	180	12.4		
		3	7.40	1650	172	12.3		
MW-6	0.28	1	7.42	2230	199	14.3	VOC	Dry at 3 well volumes
		2	7.50	2200	203	14.3		
		3	7.56	2210	194	14.2		
MW-7	0.98	1	6.98	1250	746	13.1	VOC	
		2	6.91	1250	506	11.8		
		3	6.91	1240	441	11.3		
MW-8	0.80	1	7.34	2860	227	12.9	VOC, Total Lead	MS/MSD collected
		2	7.31	2750	205	13.2	Dissolved Lead	Dissolved Lead field filtered
		3	7.31	2760	200	13.2		
MW-9	0.80	1	7.81	1440	154	12.3	VOC	
		2	7.85	1520	100	12.0		
		3	7.86	1580	103	12.1		

Notes:

MS Matrix Spike.
MSD Matrix Spike Duplicate.
VOC Volatile Organic Compound.

TABLE 3.1

SUMMARY OF DETECTED CONCENTRATIONS OF LEAD IN SOIL
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

			Sample Location:	*BH-1*	*BH-1*	*BH-2*	*BH-3*	*BH-3*	*BH-4*	*BH-4*	*BH-5*
			Sample Date:	*5/2/2006*	*5/2/2006*	*5/1/2006*	*5/2/2006*	*5/2/2006*	*5/3/2006*	*5/3/2006*	*5/2/2006*
			Sample Depth (ft. bgs):	*0.5 - 1*	*2 - 2.4*	*0 - 1*	*0.5 - 1*	*2-3*	*0.3 - 1.2*	*2.3 - 3*	*0.5 - 1.2*
	Regulatory Criteria										
Parameters	*Unrestricted* [1] *a*	*Units*									
Lead	400	mg/kg		545	144	816	2500 J	18.3 J	46.2	33.9	1470

Notes:

(1) Draft 6 NYCRR Part 375, November 2005.
[ ] Concentration exceeds criterion.
ft bgs Feet Below Ground Surface.
J Estimated.

TABLE 3.1

SUMMARY OF DETECTED CONCENTRATIONS OF LEAD IN SOIL
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

			Sample Location:	*BH-5*	*BH-6*	*BH-7*	*BH-7*	*BH-8*	*BH-8*	*BH-9*	*BH-9*
			Sample Date:	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
			Sample Depth (ft. bgs):	*1.6 - 2.5*	*0 - 0.5*	*0.5 - 1*	*1.4 - 1.8*	*0.5 - 1*	*1.4 - 2.1*	*0.5 - 1*	*2 - 2.5*
	Regulatory Criteria										
Parameters	*Unrestricted* [(1)] *a*	*Units*									
Lead	400	mg/kg	16.7	23.7	1.3	4980	0.47	11.1	9250	241

Notes:

(1) Draft 6 NYCRR Part 375, November 2005.
[ ] Concentration exceeds criterion.
ft bgs Feet Below Ground Surface.
J Estimated.

TABLE 3.1

SUMMARY OF DETECTED CONCENTRATIONS OF LEAD IN SOIL
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

			Sample Location:	*BH-10*	*BH-10*	*BH-11*	*BH-11*	*BH-12*	*BH-12*	*BH-13*	*BH-13*
			Sample Date:	*5/2/2006*	*5/2/2006*	*5/1/2006*	*5/1/2006*	*5/3/2006*	*5/3/2006*	*5/3/2006*	*5/3/2006*
			Sample Depth (ft. bgs):	*0.5 - 1*	*1.3 - 1.8*	*0 - 0.5*	*0.5 - 3*	*0.3 - 1*	*1.2 - 2.5*	*0.5 - 1.1*	*1.5 - 2.5*
	Regulatory Criteria										
Parameters	***Unrestricted*** [(1)] ***a***	***Units***									
Lead	400	mg/kg	4.1 J	12.4 J	354	106	96.8	54.9	2.8	53.2

Notes:

(1) Draft 6 NYCRR Part 375, November 2005.
Concentration exceeds criterion.
ft bgs Feet Below Ground Surface.
J Estimated.

TABLE 3.1

SUMMARY OF DETECTED CONCENTRATIONS OF LEAD IN SOIL
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

		Sample Location:	*BH-14*	*BH-14*	*BH-15*	*BH-15*	*BH-16*	*BH-16*	*BH-17*	*BH-17*
		Sample Date:	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
		Sample Depth (ft. bgs):	*0.5 - 1.5*	*2.5 - 3*	*1.5 - 2*	*3 - 3.5*	*0.75 - 1.2*	*2.5 - 3.2*	*0 - 0.5*	*1 - 1.5*
	Regulatory Criteria									
Parameters	*Unrestricted* [1] *a*	*Units*								
Lead	400	mg/kg	86.5 J	45.9 J	804	9.8	422	19.4	282	270

Notes:

(1) Draft 6 NYCRR Part 375, November 2005.
Concentration exceeds criterion.
ft bgs Feet Below Ground Surface.
J Estimated.

TABLE 3.2

SUMMARY OF ORGANIC COMPOUNDS DETECTED IN SOIL
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

			Sample Location:	*BH-2*	*BH-3*	*BH-3*	*BH-5*	*BH-5*	*BH-6*	*BH-8*	*BH-8*	*BH-12*	*BH-12*	*BH-13*	*BH-13*
			Sample Date:	*5/1/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/3/2006*	*5/3/2006*	*5/3/2006*	*5/3/2006*
			Sample Depth:	*8 - 10 ft*	*2 - 3 ft*	*4 - 5 ft*	*1.6 - 2.5 ft*	*5.5 - 6.5 ft*	*1.5 - 2 ft*	*1.4 - 2.1 ft*	*2.9 - 3.3 ft*	*1.2 - 2.5 ft*	*4 - 5 ft*	*1.5 - 2.5 ft*	*4 - 5 ft*
Parameters	*Regulatory Criteria Unrestricted*[1]	*Units*													
	a														
Volatile Organic Compounds															
cis-1,2-Dichloroethene	250	µg/kg	6.4	-	-	15000 J	1200 J	2.5 J	2.3 J	4.3 J	-	-	-	-
Methylene chloride	50	µg/kg	-	-	-	-	850 J	-	2.2 J	-	-	-	-	-
Tetrachloroethene	750	µg/kg	-	-	-	-	1300 J	-	-	-	-	-	-	-
Trichloroethene	470	µg/kg	18	-	-	670000	88000	6.0	28	15	-	-	1.4 J	-
Semi-Volatile Organic Compounds															
2-Methylnaphthalene		µg/kg	-	-	-	170 J	270 J	-	-	-	59 J	-	65 J	-
2-Methylphenol	330	µg/kg	-	-	-	8.7 J	-	-	-	-	-	-	-	-
Acenaphthene	98000	µg/kg	-	-	-	-	14 J	-	-	-	89 J	-	22 J	-
Acenaphthylene	100000	µg/kg	14 J	-	-	-	-	-	-	-	81 J	-	-	-
Anthracene	100000	µg/kg	29 J	-	-	-	-	-	-	-	220 J	-	52 J	-
Benzo(a)anthracene	1000	µg/kg	80 J	23 J	-	260 J	-	-	-	-	700 J	10 J	1300	13 J
Benzo(a)pyrene	1000	µg/kg	98 J	22 J	-	110 J	40 J	-	15 J	-	680 J	-	1300	12 J
Benzo(b)fluoranthene	1000	µg/kg	110 J	33 J	-	240 J	65 J	-	26 J	-	850	11 J	2700	24 J
Benzo(g,h,i)perylene	100000	µg/kg	94 J	23 J	-	59 J	25 J	-	19 J	-	520 J	-	1300	13 J
Benzo(k)fluoranthene	1700	µg/kg	44 J	11 J	-	-	28 J	-	9.2 J	-	340 J	-	970	9.7 J
bis(2-Ethylhexyl)phthalate	NS	µg/kg	-	-	-	1000	900	-	-	-	49 J	-	-	-
Butyl benzylphthalate	NS	µg/kg	18 J	24 J	22 J	-	-	20 J	21 J	24 J	52 J	21 J	-	26 J
Carbazole	NS	µg/kg	11 J	-	-	-	-	-	-	-	130 J	-	64 J	-
Chrysene	590	µg/kg	87 J	31 J	-	-	-	-	-	-	780	9.2 J	2100	16 J
Dibenz(a,h)anthracene	330	µg/kg	21 J	-	-	-	-	-	-	-	130 J	-	500 J	-
Dibenzofuran	NS	µg/kg	11 J	-	-	26 J	16 J	-	-	-	57 J	-	35 J	-
Di-n-butylphthalate	NS	µg/kg	-	-	-	460	-	-	-	-	-	-	-	-
Fluoranthene	100000	µg/kg	140 J	42 J	-	240 J	170 J	-	13 J	-	1500	17 J	1400	13 J
Fluorene	100000	µg/kg	-	-	-	-	20 J	-	-	-	87 J	-	-	-
Hexachlorobenzene	330	µg/kg	-	-	-	-	110 J	-	-	-	-	-	-	-
Hexachlorobutadiene	NS	µg/kg	-	-	-	90 J	67 J	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	500	µg/kg	97 J	25 J	-	91 J	30 J	-	20 J	-	560 J	-	1400	14 J
Naphthalene	12000	µg/kg	-	-	-	180 J	190 J	-	-	-	68 J	-	64 J	-
Phenanthrene	100000	µg/kg	76 J	35 J	-	230 J	220 J	-	11 J	-	870	15 J	350 J	-
Phenol	330	µg/kg	9.4 J	-	-	16 J	-	-	-	-	-	-	18 J	-
Pyrene	100000	µg/kg	130 J	37 J	-	130 J	79 J	-	13 J	-	1100	12 J	1100	-

Notes:

[1] Draft 6 NYCRR Part 375, November 2005.
- Compound not detected.
J Estimated.
NS No Standard.
Concentration exceeds criterion.

TABLE 3.3

SUMMARY OF COMPOUNDS DETECTED IN GROUNDWATER
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

Parameters	*Groundwater Standard* [1]	*Units*	*Sample Location:* *Sample Date:*	*MW-4* *5/11/2006*	*MW-5* *5/11/2006*	*MW-5* *5/11/2006* *Duplicate*	*MW-6* *5/11/2006*	*MW-7* *5/11/2006*	*MW-8* *5/11/2006*	*MW-9* *5/11/2006*
Volatile Organic Compounds										
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	NS	µg/L		-	-	-	-	-	3.0 J	-
cis-1,2-Dichloroethene	5	µg/L		960	130000	140000	24000	-	8.5	-
Methyl Tert Butyl Ether	NS	µg/L		-	-	-	-	1.1 J	-	-
Trichloroethene	5	µg/L		1600	540000	600000	12000	-	31	-
Vinyl chloride	5	µg/L		-	-	-	570 J	-	-	-
Metals										
Lead, Total	25	µg/L		NA	NA	NA	NA	NA	46.0	NA
Lead, Dissolved	25	µg/L		NA	NA	NA	NA	NA	-	NA

Notes:

[1] New York State Ambient Water Quality Standards, Class GA Groundwater, Technical and Operational Guidance Standards (TOGS) 1.1.1.
- Analyte not detected.
J Estimated concentration.
NS No Standard.
Concentration exceeds groundwater standard.
NA Not analyzed.

TABLE 4.1

SELECTION OF EXPOSURE PATHWAY SCENARIOS
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

Scenario Timeframe	*Medium*	*Exposure Medium*	*Exposure Point*	*Receptor Population*	*Receptor Age*	*Exposure Route*	*On-Site/ Off-Site*	*Rationale for Selection or Exclusion of Exposure Pathway*
Current/ Future:	Surface Soil (0 to 2 ftbgs)	Surface Soil	Direct Contact	Trespasser	Adolescent	Ingestion Dermal Inhalation of particulates	on-Site	Potential exposure to contaminated surface soil while trespassing on the Site.
			Direct Contact	Industrial Worker	Adult	Ingestion Dermal Inhalation of particulates	on-Site	Potential exposure to contaminated surface soil while working on the Site.
		Ambient Air	Direct Contact	Trespasser	Adolescent	Inhalation of vapors	on-Site	Potential exposure to VOCs in ambient air while trespassing on the Site.
			Direct Contact	Industrial Worker	Adult	Inhalation of vapors	on-Site	Potential exposure to VOCs in ambient air while working on the Site.
	Soils (0 to 10 ftbgs)	Indoor Air	Direct Contact	Industrial Worker	Adult	Inhalation of vapors	on-Site	Potential exposure to VOCs in indoor air while working on the Site.
	Groundwater	Indoor Air	Direct Contact	Industrial Worker	Adult	Inhalation of vapors	on-Site	Potential exposure to VOCs in indoor air while working on the Site.
Future:	Soil (0 to 10 ftbgs)	Soil	Direct Contact	Construction Worker	Adult	Ingestion Dermal Inhalation of particulates	on-Site	Potential exposure to contaminated soil during ground intrusive activities on the Site.
		Ambient Air	Direct Contact	Construction Worker	Adult	Inhalation of vapors	on-Site	Potential exposure to VOCs in ambient air during ground intrusive activities on the Site
	Groundwater	Groundwater	Direct Contact	Construction Worker	Adult	Ingestion Dermal	on-Site	Potential exposure to contaminated groundwater during ground intrusive activities on the Site.
		Ambient Air	Direct Contact	Construction Worker	Adult	Inhalation of vapors	on-Site	Potential exposure to contaminated groundwater during ground intrusive activities on the Site.

TABLE 4.2

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) IN SURFACE SOIL
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

Scenario Timeframe: Current/ Future
Medium: Surface Soil
Exposure Medium: Surface Soil

CAS Number	Chemical	Minimum Concentration (1,2)	Minimum Qualifier	Maximum Concentration (1,2)	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency (2)	Range of Detection Limits (2)	Concentration Used for Screening (2)	NYSDEC SCO Industrial (3)	R3-RBC Soil Industrial (4)	Screening Toxicity Value (5)		COPC Flag	Rationale for Contaminant Deletion or Selection (6)
	Volatiles															
156-59-2	cis-1,2-Dichloroethene	2.30	J	15000	J	µg/kg	BH-5; 1.6-2.5 ftbgs (05/02/06)	3/6	6.1 - 660	15000	1900000	20400000	1900000	N		BSC
75-09-2	Methylene chloride	2.20	J	2.20	J	µg/kg	BH-8; 1.4-2.1 ftbgs (05/02/06)	1/6	5.6 - 29000	2.20	3200000	382000	382000	C		BSC
79-01-6	Trichloroethene	1.40	J	670000		µg/kg	BH-5; 1.6-2.5 ftbgs (05/02/06)	4/6	6.1 - 660	670000	400000	7150	7150	C	X	ASC
1330-20-7	Xylene (total)	7600		7600		µg/kg	SB-33; 0-4 ftbgs (03/01/04)	1/6	17 - 87000	7600	6200000	204000000	6200000	N		BSC
	Semi-Volatiles															
91-57-6	2-Methylnaphthalene	59.0	J	1500		µg/kg	SB-33; 0-4 ftbgs (03/01/04)	4/6	380 - 400	1500	17000000 (7)	4090000	4090000	N		BSC
95-48-7	2-Methylphenol	8.70	J	8.70	J	µg/kg	BH-5; 1.6-2.5 ftbgs (05/02/06)	1/6	380 - 4600	8.70	41000000	51100000	41000000	N		BSC
83-32-9	Acenaphthene	22.0	J	89.0	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	2/6	380 - 4600	89.0	43000000	61300000	43000000	N		BSC
208-96-8	Acenaphthylene	81.0	J	81.0	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	1/6	380 - 4600	81.0	43000000	--	43000000	N		BSC
120-12-7	Anthracene	52.0	J	220	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	2/6	380 - 4600	220	65000000	307000000	65000000	N		BSC
56-55-3	Benzo(a)anthracene	260	J	1300		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	4/6	380 - 400	1300	11000	3920	3920	C		BSC
50-32-8	Benzo(a)pyrene	15.0	J	1300		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	4/6	380 - 4600	1300	1100	392	392	C	X	ASC
205-99-2	Benzo(b)fluoranthene	26.0	J	2700		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	5/6	380	2700	11000	3920	3920	C		BSC
191-24-2	Benzo(g,h,i)perylene	19.0	J	1300		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	4/6	380 - 4600	1300	22000000	--	22000000	N		BSC
207-08-9	Benzo(k)fluoranthene	9.20	J	970		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	3/6	380 - 4600	970	110000	39200	39200	C		BSC
117-81-7	bis(2-Ethylhexyl)phthalate	49.0	J	1700		µg/kg	SB-33; 0-4 ftbgs (03/01/04)	3/6	380 - 810	1700	--	204000	204000	C		BSC
85-68-7	Butyl benzylphthalate	20.0	J	52.0	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	3/6	380 - 4600	52.0	--	204000000	204000000	N		BSC
86-74-8	Carbazole	64.0	J	130	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	2/6	380 - 4600	130	--	--	86000 (8)	N		BSC
218-01-9	Chrysene	560	J	2100		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	3/6	380 - 400	2100	110000	392000	110000	C		BSC
53-70-3	Dibenz(a,h)anthracene	130	J	500	J	µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	2/6	380 - 4600	500	1100	392	392	C	X	ASC
132-64-9	Dibenzofuran	26.0	J	57.0	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	3/6	380 - 4600	57.0	1700000	--	1700000	N		BSC
84-74-2	Di-n-butylphthalate	460		18000		µg/kg	SB-33; 0-4 ftbgs (03/01/04)	2/6	380 - 810	18000	--	102000000	102000000	N		BSC
206-44-0	Fluoranthene	13.0	J	1500		µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	5/6	380.0	1500	29000000	40900000	29000000	N		BSC
86-73-7	Fluorene	87.0	J	87.0	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	1/6	380 - 4600	87.0	29000000	40900000	29000000	N		BSC
87-68-3	Hexachlorobutadiene	90.0	J	90.0	J	µg/kg	BH-5; 1.6-2.5 ftbgs (05/02/06)	1/6	380 - 4600	90.0	--	36700	36700	C		BSC
193-39-5	Indeno(1,2,3-cd)pyrene	20.0	J	1400		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	4/6	380 - 4600	1400	11000	3920	3920	C		BSC
91-20-3	Naphthalene	64.0	J	180	J	µg/kg	BH-5; 1.6-2.5 ftbgs (05/02/06)	3/6	380 - 4600	180	17000000	20400000	17000000	N		BSC
85-01-8	Phenanthrene	11.0	J	870		µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	5/6	380.0	870	22000000	--	22000000	N		BSC
108-95-2	Phenol	16.0	J	18.0	J	µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	2/6	380 - 4600	18.0	250000000	307000000	250000000	N		BSC
129-00-0	Pyrene	13.0	J	1100		µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06) BH-13; 1.5-2.5 ftbgs (05/03/06)	5/6	380	1100	22000000	30700000	22000000	N		BSC

TABLE 4.2

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) IN SURFACE SOIL
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

Scenario Timeframe: Current/ Future
Medium: Surface Soil
Exposure Medium: Surface Soil

CAS Number	Chemical	Minimum Concentration (1,2)	Minimum Qualifier	Maximum Concentration (1,2)	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency (2)	Range of Detection Limits (2)	Concentration Used for Screening (2)	NYSDEC SCO Industrial (3)	R3-RBC Soil Industrial (4)	Screening Toxicity Value (5)		COPC Flag	Rationale for Contaminant Deletion or Selection (6)
	Metals															
7440-38-2	Arsenic	2.90		24.0		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	4/4	--	24.0	12.0	1.91	1.91	C	X	ASC
7440-39-3	Barium	39.0		290		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	4/4	--	290	27000	204000	27000	N		BSC
7440-43-9	Cadmium	1.0		5.60		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	5/5	--	5.60	60.0	511	60.0	N		BSC
7440-47-3	Chromium	10.0		25.0		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	3/4	6.1	25.0	6800	1530000	6800	N		BSC
7439-92-1	Lead	0.47		9250		mg/kg	BH-9; 0.5-1 ftbgs (05/02/06)	30/30	--	9250	3900	800 (9)	800	C	X	ASC
7439-97-6	Mercury	0.37		0.37		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	1/4	0.25 - 0.26	0.37	5.70	307 (10)	5.70	N		BSC
7782-49-2	Selenium	0.95		7.50		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	2/4	0.61 - 0.63	7.50	6800	5110	5110	N		BSC

Notes:

(1) Minimum/maximum detected concentration.

(2) Based on data collected from sampling locations: SB-24/25, SB-27/28, SB-26/29, SB-33, SB-40, BH-1, BH-2, BH-3, BH-4, BH-5, BH-6, BH-7, BH-8, BH-9, BH-10, BH-11, BH-12, BH-13, BH-14, BH-15, BH-16, BH-17.

(3) Final Human Health-based Soil Cleanup Objectives (SCO), Table 5.6-1 Industrial, 6 NYCRR Part 375, New York State Brownfield Cleanup Program, Development of Soil Cleanup Objectives, Technical Support Document, Draft, November 2005.

(4) Region III Risk-Based Concentration (R3-RBC) Table, Soil Industrial, April 11, 2006.

(5) Screening criterion is the lower of the NYSDEC SCO or R3-RBC Soil Industrial value.

(6) Rationale Codes
Selection Reason: Maximum detected above Screening Criterion (ASC)
Analyte Detected (AD)
Deletion Reason: Maximum detected below Screening Criterion (BSC)

(7) No criterion listed for 2-methylnaphthalene, substituted criterion for naphthalene.

(8) No criterion listed from either NYSDEC or R3-RBC, substituted Soil Industrial R9-PRG (Region IX Preliminary Remediation Goals Table, October 2004).

(9) Based on USEPA IEUBK adult lead model.

(10) No criterion listed for mercury, substituted criterion for mercuric chloride.

Definitions:
C = Carcinogenic
N = Non-Carcinogenic
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Conside
-- = Not Available
N/A = Not Applicable
J = Associated value is estimated

TABLE 4.3

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) IN SURFACE AND SUBSURFACE SOIL
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

Scenario Timeframe: Future
Medium: Surface and Subsurface Soil
Exposure Medium: Soil

CAS Number	Chemical	Minimum Concentration (1,2)	Minimum Qualifier	Maximum Concentration (1,2)	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency (2)	Range of Detection Limits (2)	Concentration Used for Screening (2)	NYSDEC SCO Industrial (3)	R3-RBC Soil Industrial (4)	Screening Toxicity Value (5)		COPC Flag	Rationale for Contaminant Deletion or Selection (6)
	Volatiles															
156-59-2	cis-1,2-Dichloroethene	2.30	J	15000	J	µg/kg	BH-5; 1.6-2.5 ftbgs (05/02/06)	6/15	6.1 - 30000	15000	1900000	20400000	1900000	N		BSC
75-09-2	Methylene chloride	2.20	J	850	J	µg/kg	BH-5; 5.5-6.5 ftbgs (05/02/06)	2/15	5.5 - 30000	850	3200000	382000	382000	C		BSC
127-18-4	Tetrachloroethene	1300.0		1300	J	µg/kg	BH-5; 5.5-6.5 ftbgs (05/02/06)	1/15	5.5 - 33000	1300	51000	5300	5300	C		BSC
79-01-6	Trichloroethene	1.40	J	670000		µg/kg	BH-5; 1.6-2.5 ftbgs (05/02/06)	9/15	6.1 - 660	670000	400000	7150	7150	C	X	ASC
1330-20-7	Xylene (total)	7600		7600		µg/kg	SB-33; 0-4 ftbgs (03/01/04)	1/15	17 - 87000	7600	6200000	204000000	6200000	N		BSC
	Semi-Volatiles															
91-57-6	2-Methylnaphthalene	59.0	J	1500		µg/kg	SB-33; 0-4 ftbgs (03/01/04)	5/14	380 - 410	1500	17000000 (7)	4090000	4090000	N		BSC
95-48-7	2-Methylphenol	8.70	J	8.70	J	µg/kg	BH-5; 1.6-2.5 ftbgs (05/02/06)	1/14	380 - 4600	8.70	41000000	51100000	41000000	N		BSC
83-32-9	Acenaphthene	14.0	J	89.0	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	3/14	380 - 4600	89.0	43000000	61300000	43000000	N		BSC
208-96-8	Acenaphthylene	14.0	J	81.0	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	2/14	380 - 4600	81.0	43000000	--	43000000	N		BSC
120-12-7	Anthracene	29.0	J	590		µg/kg	SB-36; 8-9 ftbgs (03/01/04)	4/14	380 - 4600	590	65000000	307000000	65000000	N		BSC
56-55-3	Benzo(a)anthracene	10.0	J	1300		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	9/14	380 - 410	1300	11000	3920	3920	C		BSC
50-32-8	Benzo(a)pyrene	12.0	J	1300		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	9/14	380 - 4600	1300	1100	392	392	C	X	ASC
205-99-2	Benzo(b)fluoranthene	11.0	J	2700		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	11/14	380 - 410	2700	11000	3920	3920	C		BSC
191-24-2	Benzo(g,h,i)perylene	13.0	J	1300		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	8/14	380 - 4600	1300	22000000	--	22000000	N		BSC
207-08-9	Benzo(k)fluoranthene	9.20	J	970		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	7/14	380 - 4600	970	110000	39200	39200	C		BSC
117-81-7	bis(2-Ethylhexyl)phthalate	49.0	J	1700		µg/kg	SB-33; 0-4 ftbgs (03/01/04)	4/14	380 - 810	1700	--	204000	204000	C		BSC
85-68-7	Butyl benzylphthalate	18.0	J	52.0	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	9/14	380 - 4600	52.0	--	204000000	204000000	N		BSC
86-74-8	Carbazole	11.0	J	130	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	3/14	380 - 4600	130	--	--	86000 (8)	N		BSC
218-01-9	Chrysene	9.20	J	2100		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	8/14	380 - 410	2100	110000	392000	110000	C		BSC
53-70-3	Dibenz(a,h)anthracene	21.0	J	500	J	µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	3/14	380 - 4600	500	1100	392	392	C	X	ASC
132-64-9	Dibenzofuran	11.0	J	430		µg/kg	SB-36; 8-9 ftbgs (03/01/04)	6/14	380 - 4600	430	1700000	--	1700000	N		BSC
84-74-2	Di-n-butylphthalate	460		18000		µg/kg	SB-33; 0-4 ftbgs (03/01/04)	2/14	380 - 810	18000	--	102000000	102000000	N		BSC
206-44-0	Fluoranthene	13.0	J	2300		µg/kg	SB-36; 8-9 ftbgs (03/01/04)	11/14	380 - 410	2300	29000000	40900000	29000000	N		BSC
86-73-7	Fluorene	20.0	J	480		µg/kg	SB-36; 8-9 ftbgs (03/01/04)	3/14	380 - 4600	480	29000000	40900000	29000000	N		BSC
118-74-1	Hexachlorobenzene	110	J	110	J	µg/kg	BH-5; 5.5-6.5 ftbgs (05/02/06)	1/14	380 - 4600	110	12000	1790	1790	C		BSC
87-68-3	Hexachlorobutadiene	67.0	J	90.0	J	µg/kg	BH-5; 1.6-2.5 ftbgs (05/02/06)	2/14	380 - 4600	90.0	--	36700	36700	C		BSC
193-39-5	Indeno(1,2,3-cd)pyrene	14.0	J	1400		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	8/14	380 - 4600	1400	11000	3920	3920	C		BSC
91-20-3	Naphthalene	64.0	J	190	J	µg/kg	BH-5; 5.5-6.5 ftbgs (05/02/06)	4/14	380 - 4600	190	17000000	20400000	17000000	N		BSC
85-01-8	Phenanthrene	11.0	J	2700		µg/kg	SB-36; 8-9 ftbgs (03/01/04)	10/14	380 - 410	2700	22000000	--	22000000	N		BSC
108-95-2	Phenol	9.40	J	18.0	J	µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	3/14	380 - 4600	18.0	250000000	307000000	250000000	N		BSC
129-00-0	Pyrene	12.0	J	1800		µg/kg	SB-36; 8-9 ftbgs (03/01/04)	10/14	380 - 410	1800	22000000	30700000	22000000	N		BSC

TABLE 4.3

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) IN SURFACE AND SUBSURFACE SOIL
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

Scenario Timeframe: Future
Medium: Surface and Subsurface Soil
Exposure Medium: Soil

CAS Number	Chemical	Minimum Concentration (1,2)	Minimum Qualifier	Maximum Concentration (1,2)	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency (2)	Range of Detection Limits (2)	Concentration Used for Screening (2)	NYSDEC SCO Industrial (3)	R3-RBC Soil Industrial (4)	Screening Toxicity Value (5)		COPC Flag	Rationale for Contaminant Deletion or Selection (6)
	Metals															
7440-38-2	Arsenic	2.50		24.0		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	5/8	1.2	24.0	12.0	1.91	1.91	C	X	ASC
7440-39-3	Barium	37.0		290		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	8/8	--	290	27000	204000	27000	N		BSC
7440-43-9	Cadmium	1.0		5.60		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	11/11	--	5.60	60.0	511	60.0	N		BSC
7440-47-3	Chromium	8.90		25.0		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	7/8	6.1	25.0	6800	1530000	6800	N		BSC
7439-92-1	Lead	0.47		9250		mg/kg	BH-9; 0.5-1 ftbgs (05/02/06)	40/43	11 - 12	9250	3900	800 (9)	800	C	X	ASC
7439-97-6	Mercury	0.37		0.37		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	1/8	0.23 - 0.26	0.37	5.70	307 (10)	5.70	N		BSC
7782-49-2	Selenium	0.95		7.50		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	2/8	0.57 - 0.63	7.50	6800	5110	5110	N		BSC

Notes:

(1) Minimum/maximum detected concentration.

(2) Based on data collected from sampling locations: SB-24/25, SB-27/28, SB-26/29, SB-30/31/32, SB-33, SB-35, SB-36, SB-37, SB-39, SB-40, SB-41, SB-42, BH-1, BH-2, BH-3, BH-4, BH-5, BH-6, BH-7, BH-8, BH-9, BH-10, BH-11, BH-12, BH-13, BH-14, BH-15, BH-16, BH-17, excluding VOC data for SB-30/31/32.

(3) Final Human Health-based Soil Cleanup Objectives (SCO), Table 5.6-1 Industrial, 6 NYCRR Part 375, New York State Brownfield Cleanup Program, Development of Soil Cleanup Objectives, Technical Support Document, Draft, November 2005.

(4) Region III Risk-Based Concentration (R3-RBC) Table, Soil Industrial, April 11, 2006.

(5) Screening criterion is the lower of the NYSDEC TAGM 4046 or R3-RBC Soil Industrial value.

(6) Rationale Codes
Selection Reason: Maximum detected above Screening Criterion (ASC)
Analyte Detected (AD)
Deletion Reason: Maximum detected below Screening Criterion (BSC)

(7) No criterion listed for 2-methylnaphthalene, substituted criterion for naphthalene.

(8) No criterion listed from either NYSDEC or R3-RBC, substituted Soil Industrial R9-PRG (Region IX Preliminary Remediation Goals Table, October 2004).

(9) Based on USEPA IEUBK adult lead model.

(10) No criterion listed for mercury, substituted criterion for mercuric chloride.

Definitions:
C = Carcinogenic
N = Non-Carcinogenic
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/To Be Conside
-- = Not Available
N/A = Not Applicable
J = Associated value is estimated

TABLE 4.4

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) IN SOIL TO INDOOR AIR
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

Scenario Timeframe: Current/ Future
Medium: Surface and Subsurface Soil
Exposure Medium: Indoor Air

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)	Screening Toxicity Value		COPC Flag	Rationale for (3) Contaminant Deletion or Selection
	Volatiles													
156-59-2	cis-1,2-Dichloroethene	2.30	J	15000	J	µg/kg	BH-5; 1.6-2.5 ftbgs (05/02/06)	6/12	6.1 - 6.6	15000	--	N	X	AD
75-09-2	Methylene chloride	2.20	J	850	J	µg/kg	BH-5; 5.5-6.5 ftbgs (05/02/06)	2/12	5.5 - 29000	850	--	C	X	AD
127-18-4	Tetrachloroethene	1300.0		1300	J	µg/kg	BH-5; 5.5-6.5 ftbgs (05/02/06)	1/12	5.5 - 29000	1300	--	C	X	AD
79-01-6	Trichloroethene	1.40	J	670000		µg/kg	BH-5; 1.6-2.5 ftbgs (05/02/06)	9/14	6.1 - 6.4	670000	--	C	X	AD
1330-20-7	Xylene (total)	7600		7600		µg/kg	SB-33; 0-4 ftbgs (03/01/04)	1/13	17 - 87000	7600	--	N	X	AD
	Semi-Volatiles													
91-57-6	2-Methylnaphthalene	59.0	J	1500		µg/kg	SB-33; 0-4 ftbgs (03/01/04)	5/13	380 - 410	1500	--	N	X	AD
95-48-7	2-Methylphenol	8.70	J	8.70	J	µg/kg	BH-5; 1.6-2.5 ftbgs (05/02/06)	1/12	380 - 810	8.70	--	N		NA
83-32-9	Acenaphthene	14.0	J	89.0	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	3/12	380 - 410	89.0	--	N	X	AD
208-96-8	Acenaphthylene	14.0	J	81.0	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	2/12	380 - 810	81.0	--	N	X	AD
120-12-7	Anthracene	29.0	J	590		µg/kg	SB-36; 8-9 ftbgs (03/01/04)	4/13	380 - 410	590	--	N	X	AD
56-55-3	Benzo(a)anthracene	10.0	J	1300		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	9/14	380 - 410	1300	--	C		NA
50-32-8	Benzo(a)pyrene	12.0	J	1300		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	9/13	380 - 410	1300	--	C		NA
205-99-2	Benzo(b)fluoranthene	11.0	J	2700		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	11/14	380 - 410	2700	--	C	X	AD
191-24-2	Benzo(g,h,i)perylene	13.0	J	1300		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	8/12	380 - 410	1300	--	N		NA
207-08-9	Benzo(k)fluoranthene	9.20	J	970		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	7/12	380 - 410	970	--	C		NA
117-81-7	bis(2-Ethylhexyl)phthalate	49.0	J	1700		µg/kg	SB-33; 0-4 ftbgs (03/01/04)	4/13	380 - 810	1700	--	C		NA
85-68-7	Butyl benzylphthalate	18.0	J	52.0	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	9/12	380 - 810	52.0	--	N		NA
86-74-8	Carbazole	11.0	J	130	J	µg/kg	BH-12; 1.2-2.5 ftbgs (05/03/06)	3/12	380 - 410	130	--	N		NA
218-01-9	Chrysene	9.20	J	2100		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	8/14	380 - 410	2100	--	C	X	AD
53-70-3	Dibenz(a,h)anthracene	21.0	J	500	J	µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	3/12	380 - 410	500	--	C		NA
132-64-9	Dibenzofuran	11.0	J	430		µg/kg	SB-36; 8-9 ftbgs (03/01/04)	6/13	380 - 410	430	--	N	X	AD
84-74-2	Di-n-butylphthalate	460		18000		µg/kg	SB-33; 0-4 ftbgs (03/01/04)	2/13	380 - 810	18000	--	N		NA
206-44-0	Fluoranthene	13.0	J	2300		µg/kg	SB-36; 8-9 ftbgs (03/01/04)	11/14	380 - 410	2300	--	N	X	AD
86-73-7	Fluorene	20.0	J	480		µg/kg	SB-36; 8-9 ftbgs (03/01/04)	3/13	380 - 810	480	--	N	X	AD
118-74-1	Hexachlorobenzene	110	J	110	J	µg/kg	BH-5; 5.5-6.5 ftbgs (05/02/06)	1/12	380 - 810	110	--	C	X	AD
87-68-3	Hexachlorobutadiene	67.0	J	90.0	J	µg/kg	BH-5; 1.6-2.5 ftbgs (05/02/06)	2/12	380 - 810	90.0	--	C	X	AD
193-39-5	Indeno(1,2,3-cd)pyrene	14.0	J	1400		µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	8/12	380 - 410	1400	--	C		NA
91-20-3	Naphthalene	64.0	J	190	J	µg/kg	BH-5; 5.5-6.5 ftbgs (05/02/06)	4/12	380 - 410	190	--	N	X	AD
85-01-8	Phenanthrene	11.0	J	2700		µg/kg	SB-36; 8-9 ftbgs (03/01/04)	10/14	380 - 410	2700	--	N		NA
108-95-2	Phenol	9.40	J	18.0	J	µg/kg	BH-13; 1.5-2.5 ftbgs (05/03/06)	3/12	380 - 770	18.0	--	N		NA
129-00-0	Pyrene	12.0	J	1800		µg/kg	SB-36; 8-9 ftbgs (03/01/04)	10/14	380 - 410	1800	--	N	X	AD

TABLE 4.4

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) IN SOIL TO INDOOR AIR
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

Scenario Timeframe: Current/ Future
Medium: Surface and Subsurface Soil
Exposure Medium: Indoor Air

CAS Number	Chemical	Minimum Concentration (1,2)	Minimum Qualifier	Maximum Concentration (1,2)	Maximum Qualifier	Units	Location of Maximum Concentration	Detection Frequency (2)	Range of Detection Limits (2)	Concentration Used for Screening (2)	Screening Toxicity Value		COPC Flag	Rationale for Contaminant Deletion or Selection (3)
	Metals													
7440-38-2	Arsenic	2.50		24.0		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	5/5	--	24.0	--	C		NA
7440-39-3	Barium	37.0		290		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	8/8	--	290	--	N		NA
7440-43-9	Cadmium	1.0		5.60		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	11/11	--	5.60	--	N		NA
7440-47-3	Chromium	8.90		25.0		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	7/7	--	25.0	--	N		NA
7439-92-1	Lead	0.47		9250		mg/kg	BH-9; 0.5-1 ftbgs (05/02/06)	40/40	--	9250	--	C		NA
7439-97-6	Mercury	0.37		0.37		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	1/1	--	0.37	--	N	X	AD
7782-49-2	Selenium	0.95		7.50		mg/kg	SB-33; 0-4 ftbgs (03/01/04)	2/2	--	7.50	--	N		NA

Notes:

(1) Minimum/maximum detected concentration.

(2) Based on data collected from sampling locations: SB-24/25, SB-27/28, SB-26/29, SB-30/31/32, SB-33, SB-35, SB-36, SB-37, SB-39, SB-40, SB-41, SB-42, BH-1, BH-2, BH-3, BH-4, BH-5, BH-6, BH-7, BH-8, BH-9, BH-10, BH-11, BH-12, BH-13, BH-14, BH-15, BH-16, BH-17, excluding VOC data for SB-30/31/32.

(3) Rationale Codes
Selection Reason : Analyte Detected; analyte considered to be volatile (AD)
Deletion Reason : Not Applicable; analyte not considered to be volatile (NA)

Definitions:
C = Carcinogenic
N = Non-Carcinogenic
ARAR/TBC = Applicable or Relevant and Appropriate Requirement/
-- = Not Available
N/A = Not Applicable
J = Associated value is estimated

TABLE 4.5

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) IN GROUNDWATER
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

Scenario Timeframe: Future
Medium: Groundwater
Exposure Medium: Groundwater

CAS Number	Chemical	Minimum Concentration (1,2)	Minimum Qualifier	Maximum Concentration (1,2)	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)	Screening Toxicity Value (6)		COPC Flag	Rationale for Contaminant Deletion or Selection (7)
	Volatiles																
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.0	J	3.0	J	µg/L	MW-8/BH-15 (05/11/06)	1/6	5.0 - 30000	3.0	50	--	6280	50	N		BSC
156-59-2	cis-1,2-Dichloroethene	8.50		140000		µg/L	MW-5/BH-5 (05/11/06)	4/6	5.0	140000	5	5	--	5	N	X	ASC
1634-04-4	Methyl Tert Butyl Ether (MTBE)	1.10	J	1.10	J	µg/L	MW-7/BH-14 (05/11/06)	1/6	5.0 - 30000	1.10	50	10	2.64	2.64	C		BSC
79-01-6	Trichloroethene	31.0		600000		µg/L	MW-5/BH-5 (05/11/06)	4/6	5.0	600000	5	5	0.0264	0.0264	C	X	ASC
75-01-4	Vinyl chloride	570	J	570	J	µg/L	MW-6/BH-3 (05/11/06)	1/6	5.0 - 30000	570	2	2	0.015	0.015	C	X	ASC
	Metals																
7439-92-1	Lead	46.0		46.0		µg/L	MW-8/BH-15 (05/11/06)	1/1	--	46.0	15 (8)	25	--	15	C	X	ASC

Notes:

(1) Minimum/maximum detected concentration.

(2) Based on data collected from sampling locations: MW-4, MW-5, MW-6, MW-7, MW-8, MW-9.

(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 addenda.

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

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

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

(8) No MCL listed for lead, the value listed is the lead action level.

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

TABLE 4.6

OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN (COPC) IN GROUNDWATER TO INDOOR AIR
SUPPLEMENTAL SITE INVESTIGATION
NIAGARA CERAMICS
BUFFALO, NEW YORK

Scenario Timeframe: Current/ Future
Medium: Groundwater
Exposure Medium: Indoor Air

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)	Screening Toxicity Value (3)		COPC Flag	Rationale for (4) Contaminant Deletion or Selection
	Volatiles													
108-10-1	4-Methyl-2-Pentanone (MIBK)	3.0	J	3.0	J	µg/L	MW-8/BH-15 (05/11/06)	1/6	5.0 - 30000	3.0	14000	N		BSC
156-59-2	cis-1,2-Dichloroethene	8.50		140000		µg/L	MW-5/BH-5 (05/11/06)	4/6	5.0	140000	210	N	X	ASC
1634-04-4	Methyl Tert Butyl Ether (MTBE)	1.10	J	1.10	J	µg/L	MW-7/BH-14 (05/11/06)	1/6	5.0 - 30000	1.10	120000	C		BSC
79-01-6	Trichloroethene	31.0		600000		µg/L	MW-5/BH-5 (05/11/06)	4/6	5.0	600000	5.0	C	X	ASC
75-01-4	Vinyl chloride	570	J	570	J	µg/L	MW-6/BH-3 (05/11/06)	1/6	5.0 - 30000	570	2.0	C	X	ASC
	Metals													
7439-92-1	Lead	46.0		46.0		µg/L	MW-8/BH-15 (05/11/06)	1/1	--	46.0	--	C		NA

Notes:

(1) Minimum/maximum detected concentration.

(2) Based on data collected from sampling locations: MW-4/BH-2, MW-5/BH-5, MW-6/BH-3, MW-7/BH-14, MW-8/BH-15, MW-9/BH-1.

(3) Target Groundwater Concentration Corresponding to Target Indoor Air Concentration, Table 2c: Generic Screening Levels, Risk = 1 x 10 $^{-6}$, Draft Guidance for Evaluation of the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils, USEPA, November 2005.

(4) Rationale Codes
Selection Reason: Maximum detected above Screening Criterion (ASC)
Analyte Detected; analyte considered to be a volatile (AD)
Deletion Reason: Maximum detected below Screening Criterion (BSC)
Not Applicable; analyte not considered to be volatile (NA)

Definitions:
C = Carcinogenic
N = Non-Carcinogenic
ARAR/TBC = Applicable or Relevant and Appropriate Requirem
-- = Not Available
N/A = Not Applicable
J = Associated value is estimated

APPENDIX A

PHASE II INVESTIGATION RESULTS

PHASE II INVESTIGATION RESULTS

Investigative data for subsurface soils at the Niagara Ceramics Site are provided in the report entitled:

Focused Phase II Environmental Assessment
Industrial Property, 51 Hayes Place, Buffalo, New York
Prepared by Environmental Audits, Inc.
March 11, 2004

The report states that the "…focused Phase II ESA was completed to address selected conditions of environmental concern, as originally identified in a Phase I report prepared by EA, dated February 2004." The report identifies the "primary conditions of concern" for the Niagara Ceramics property generally as follows:

- Condition of the shallow surface and subsurface soil profile within the following on-site locations: 1) paved and dirt/gravel parking areas surrounding the factory; and 2) large perimeter berm.
- Condition of subfloor soil profile within the factory (compressor room, chemical storage vaults, glazemaking area) and inside the warehouse at 151 Harrison Street.

The scope of the Phase II assessment included exterior subsurface borings (to maximum 16 feet below grade), nine building interior subsurface borings (to maximum 10 feet below grade), soil sample collection, screening and analysis. No groundwater samples were collected.

Soil borings were advanced using direct push technology. Soil cores were examined visually and were screened using a portable organic vapor monitor. Selected samples were submitted for laboratory analysis for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals, or a subset thereof[1]. The exterior areas that were assessed include "Waste Storage and Maintenance Area", and "Harrison Warehouse and Silo Area". The interior areas that were assessed include "Main Factory Area", and "Harrison Street Warehouse". The analytical results were

[1] It is noted that many of the soil sample intervals extend over several feet, with the longest being from 4 to 16 feet (at SB 22). Also, some of the samples were apparently composites from multiple borings. The methodology makes data interpretation difficult because the data representation is not clear. Further, the compositing approach may have compromised the quality of the VOC data.

compared to TAGM 4046 recommended soil cleanup objectives and a number of exceedances were noted, for various organic and inorganic parameters. The data are summarized in Attachment 3 of the Phase II report. The results of the assessment, as presented by Environmental Audits, Inc., are summarized as follows:

- Field observations and analytical data identified the presence of significant subsurface concentrations of VOCs inside and near the Harrison Street warehouse. [This included xylenes (up to 11 ppm), ethylbenzene (up to 9.6 ppm) and TCE (up to 250 ppm).] It is suspected that the TCE is related to the former mirror manufacturing facility that occupied the Harrison Street warehouse.
- The subfloor soil sample from the Glazemaking room exhibited an elevated lead concentration (10,000 ppm).

The analytical results from the Phase II investigation for the Niagara Ceramics Site, are presented in Table A-1.

TABLE A-1

Sample Location:		SB-24,25	SB-27,28	SB-26,29	SB-30,31,32	SB-33	SB-35	SB-36	SB-37	SB-39	SB-40	SB-41	SB-42	ISB-2	ISB-3	ISB-4	ISB-5	ISB-6	ISB-7,8	ISB-9
Sample ID:																				
Sample Date:		27-Feb-04	27-Feb-04	27-Feb-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04
Sample Depth:		0-4	0-4	0-4	4-10	0-4	4-10	8-9	4-5.5	8-8.5	0-4	0-6	0-8	4-8	0-8	0-4	0-8	0-8	4-8,7-10	0-7
Code																				
	Units																			
Percent Solids	%	90	82	82	88	73	83	82	87	85	84	89	79	85	82	90	89	86	88	83
Metals																				
Arsenic	mg/kg	9.3	2.9	6.0	<1.2	24	2.5	na	<1.2	<1.2	na	na	na	12	na	na	na	8.2	<1.2	6.3
Barium	mg/kg	39	40	84	38	290	66	na	59	37	na	na	na	82	na	na	na	83	68	130
Cadmium	mg/kg	4.6	1.5	1.0	1.3	5.6	2.2	na	2.1	1.5	3.3	1.6	2.5	1.7	4.5	3.0	1.6	2.8	1.8	3.1
Chromium	mg/kg	23	10.0	<6.1	8.9	25	16	na	14	10.0	na	na	na	11	na	na	na	25	16	23
Lead	mg/kg	51	23	180	14	210	<12	na	<11.0	29	110	<12	200	92	10000	46	<11	15	<11	36
Mercury	mg/kg	<0.26	<0.25	<0.25	<0.23	0.37	<0.25	na	<0.23	<0.25	na	na	na	0.48	na	na	na	<0.24	<0.23	0.80
Selenium	mg/kg	<0.63	0.95	<0.61	<0.57	7.5	<0.61	na	<0.58	<0.59	na	na	na	<0.59	na	na	na	<0.59	<0.6	<0.7
Silver	mg/kg	<6.3	<6.2	<6.2	<5.7	<6.8	<6	na	<5.7	<5.9	na	na	na	<5.9	na	na	na	<5.8	5.7	<6
VOCs																				
Chloromethane	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
Bromomethane	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
Vinyl Chloride	µg/kg	na	na	na	<33.0	<440	<30,000	na	<290	na	na	na	na	<2	na	na	na	<2	<2	<400
Chloroethane	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<400
Methylene Chloride	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	9	na	na	na	8	7	<600
Acetone	µg/kg	na	na	na	<57.0	<2,200	<100,000	na	<960	na	na	na	na	<12	na	na	na	<28	<11	<2,000
Carbon Disulfide	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
1,1-Dichloroethene	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
1,1-Dichloroethane	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
trans-1,2-Dichloroethene	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
cis-1,2-Dicholoroethene	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	14	<600
Chloroform	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
1,2-Dichloroethane	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
2-Butanone	µg/kg	na	na	na	<57.0	<2,200	<100,000	na	<960	na	na	na	na	<12	na	na	na	<12	<11	<2,000
1,1,1-Trichloroethane	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
Carbon Tetrachloride	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
Bromodichloromethane	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
1,2-Dichloropropane	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
cis-1,3-Dichloropropene	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
Trichloroethene	µg/kg	na	na	na	100	<660	250000	na	620	na	na	na	na	<4	na	na	na	<3	130	<600
Dibromochloromethane	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
1,1,2-Trichloroethane	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
Benzene	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
Trans-1,3-Dichloropropene	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
Bromoform	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
4-Methy-2-pentanone	µg/kg	na	na	na	<57.0	<2,200	<100,000	na	<960	na	na	na	na	<12	na	na	na	<12	<11	<2,000
2-Hexanone	µg/kg	na	na	na	<17.0	<2,200	<100,000	na	<290	na	na	na	na	<12	na	na	na	<12	<11	<600
Tetrachloroethene	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	5	<600
1,1,2,2-Tetrachloroethane	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
Toluene	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
Chlorobenzene	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
Ethylbenzene	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	9600
Styrene	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600
m,p-Xylenes	µg/kg	na	na	na	<17.0	7600	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	11000
o-Xylenes	µg/kg	na	na	na	<17.0	<660	<30,000	na	<290	na	na	na	na	<4	na	na	na	<3	<3	<600

TABLE A-1

Sample Location:		SB-24,25	SB-27,28	SB-26,29	SB-30,31,32	SB-33	SB-35	SB-36	SB-37	SB-39	SB-40	SB-41	SB-42	ISB-2	ISB-3	ISB-4	ISB-5	ISB-6	ISB-7,8	ISB-9
Sample ID:																				
Sample Date:		27-Feb-04	27-Feb-04	27-Feb-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04
Sample Depth:		0-4	0-4	0-4	4-10	0-4	4-10	8-9	4-5.5	8-8.5	0-4	0-6	0-8	4-8	0-8	0-4	0-8	0-8	4-8,7-10	0-7
Code																				
	Units																			
Percent Solids	%	90	82	82	88	73	83	82	87	85	84	89	79	85	82	90	89	86	88	83
SVOCs																				
Phenol	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
bis(2-Chloroethyl)ether	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
2-Chlorophenol	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
1,3-Dichlorobenzene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
1,4-Dichlorobenzene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
1,2-Dichlorobenzene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
2-Methylphenol	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
2,2-Oxybis(1-Chloropropane)	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
4-Methylphenol	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
n-Nitrosodnpropylamine	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Hexachloroethane	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Nitrobenzene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Isophorone	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
2-Nitrophenol	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
2,4-Dimethylphenol	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
bis(2-Chloroethoxy)methane	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
2,4-Dichlorophenol	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
1,2,4-Trichlorobenzene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Naphthalene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
4-Chloroanilene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Hexachlorobutadiene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
4-Chloro-3-methylphenol	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
2-Methylnaphthalene	µg/kg	na	na	na	na	1500	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Hexachlorocyclopentadiene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
2,4,6-Trichlorophenol	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
2,4,5-Trichlorophenol	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
2-Chloronaphthalene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
2-Nitroaniline	µg/kg	na	na	na	na	<46,000	na	<4,100	na	na	na	na	na	<3,900	na	na	na	<3,900	<3,800	<4,000
Dimethylphthalate	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Acenaphthalene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
2,6-Dinitrotoluene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
3-Nitroaniline	µg/kg	na	na	na	na	<46,000	na	<4,100	na	na	na	na	na	<3,900	na	na	na	<3,900	<3,800	<4,000
Acenaphthene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
2,4-Dinitrophenol	µg/kg	na	na	na	na	<46,000	na	<4,100	na	na	na	na	na	<390	na	na	na	<3,900	<3,800	<4,000
4-Nitrophenol	µg/kg	na	na	na	na	<46,000	na	<4,100	na	na	na	na	na	<3,900	na	na	na	<3,900	<3,800	<4,000
Dibenzofuran	µg/kg	na	na	na	na	<4,600	na	430	na	na	na	na	na	<390	na	na	na	<390	<380	<400
2,4-Dinitrotoluene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Diethylphthalate	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
4-Chlorophenylphenylether	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Fluorene	µg/kg	na	na	na	na	<4,600	na	480	na	na	na	na	na	<390	na	na	na	<390	<380	<400
4-Nitroanaline	µg/kg	na	na	na	na	<46,000	na	<4,100	na	na	na	na	na	<3,900	na	na	na	<3,900	<3,800	<4,000
2-Methy-4,6-dinitrophenol	µg/kg	na	na	na	na	<46,000	na	<4,100	na	na	na	na	na	<3,900	na	na	na	<3,900	<3,800	<4,000
n-Nitrosodiphenylamine	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
4-Bromophenylphenylether	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Hexachlorobenzene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400

TABLE A-1

Sample Location:		SB-24,25	SB-27,28	SB-26,29	SB-30,31,32	SB-33	SB-35	SB-36	SB-37	SB-39	SB-40	SB-41	SB-42	ISB-2	ISB-3	ISB-4	ISB-5	ISB-6	ISB-7,8	ISB-9
Sample ID:																				
Sample Date:		27-Feb-04	27-Feb-04	27-Feb-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	01-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04	03-Mar-04
Sample Depth:		0-4	0-4	0-4	4-10	0-4	4-10	8-9	4-5.5	8-8.5	0-4	0-6	0-8	4-8	0-8	0-4	0-8	0-8	4-8,7-10	0-7
Code																				
	Units																			
Percent Solids	%	90	82	82	88	73	83	82	87	85	84	89	79	85	82	90	89	86	88	83
Pentachlorophenol	µg/kg	na	na	na	na	<9,100	na	<810	na	na	na	na	na	<780	na	na	na	<780	<760	<800
Phenanthrene	µg/kg	na	na	na	na	530	na	2700	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Anthracene	µg/kg	na	na	na	na	<4,600	na	590	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Carbazole	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Di-n-butylphthalate	µg/kg	na	na	na	na	18000	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Fluoranthene	µg/kg	na	na	na	na	660	na	2300	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Pyrene	µg/kg	na	na	na	na	1100	na	1800	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Butylbenzylphthalate	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
3,3-Dichlorobenzidine	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Benzo(a)anthracene	µg/kg	na	na	na	na	500	na	890	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Chrysene	µg/kg	na	na	na	na	560	na	750	na	na	na	na	na	<390	na	na	na	<390	<380	<400
bis(2-Ethylhexyl)phthalate	µg/kg	na	na	na	na	1700	na	<410	na	na	na	na	na	<390	na	na	na	<390	1400	1800
Di-n-octylphthalate	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Benzo(b)fluoranthene	µg/kg	na	na	na	na	930	na	930	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Benzo(k)fluoranthene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Benzo (a) pyrene	µg/kg	na	na	na	na	<4,600	na	630	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Indeno (1,2,3-cd) pyrene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Dibenzo(a,h)anthracene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400
Benzo(g,h,i)perylene	µg/kg	na	na	na	na	<4,600	na	<410	na	na	na	na	na	<390	na	na	na	<390	<380	<400

Notes:

na - not analyzed

APPENDIX B

STRATIGRAPHIC AND INSTRUMENTATION LOGS

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-1-0506 / MW-9
DATE COMPLETED: May 2, 2006
DRILLING METHOD: Direct Push / HSA
FIELD PERSONNEL: P. Kryger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Monitoring Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 4434.26 EASTING: 3512.08 TOP OF RISER GROUND SURFACE	19.63 19.92						
0	FIL, sand and gravel, non-plastic, no structure, medium brown to gray, damp, loose		CONCRETE	023				0
2		17.52	BENTONITE 2"Ø PVC RISER	024				0
	FILL- sand, well sorted fine grained, loose, medium to dark brown, damp	16.82						
4	CL- CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic		WELL SCREEN					0
6			SAND PACK					
	- Refusal @ 7.5 ft BGS		8" Ø BOREHOLE					
8	END OF BOREHOLE @ 7.5ft BGS	12.42						
10	Soil samples for chemical analysis from 0.5 to 1.0 and 2.0 to 2.4 feet BGS. Well installed through HSA.							
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
17.92 to 12.92ft Site Coords
2.00 to 7.00ft BGS
Length: 5ft
Diameter: 2in
Slot Size: .02
Material: PVC
Seal:
18.92 to 18.42ft Site Coords
1.00 to 1.50ft BGS
Material: Bentonite
Sand Pack:
18.42 to 12.92ft Site Coords
1.50 to 7.00ft BGS
Material: Size 00N Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (023)

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

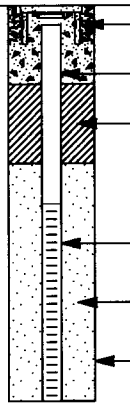
HOLE DESIGNATION: BH-2-0506 / MW-4
DATE COMPLETED: May 1, 2006
DRILLING METHOD: HSA
FIELD PERSONNEL: J. Raby

NORTHING: 4360.37
EASTING: 3715.06

TOP OF RISER 21.12
GROUND SURFACE 21.53

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords
0	GRAVEL, parking lot	20.53
2	No Recovery	
4	CH-CLAY, stiff, plastic with added water, massive structure, light brown, dry	17.53
6		
8	- moist below 7 ft BGS	
10	- Refusal @ 11.3 ft BGS	10.23
12	END OF BOREHOLE @ 11.3ft BGS Soil samples for chemical analysis from 0.0 to 0.5 and 8.0 to 10.0 feet BGS.	
14		
16		
18		
20		
22		
24		
26		
28		
30		
32		
34		

Monitoring Well



WELL DETAILS
Screened interval:
16.53 to 11.53ft Site Coords
5.00 to 10.00ft BGS
Length: 5ft
Diameter: 2in
Slot Size: .02
Material: PVC
Seal:
19.53 to 17.53ft Site Coords
2.00 to 4.00ft BGS
Material: Bentonite
Sand Pack:
17.53 to 11.53ft Site Coords
4.00 to 10.00ft BGS
Material: Size 00N Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
001 SS1		0.3	14	0
SS2		0.1	9	0
SS3		1.3	14	0
SS4		1.8	11	
002 SS5		1.6	13	
SS6		0.3	>50	

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (SS1, SS5)

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-3-0506 / MW-6
DATE COMPLETED: May 2, 2006
DRILLING METHOD: Direct Push / HSA
FIELD PERSONNEL: P. Kryger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Monitoring Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 4252.48 EASTING: 3767.77 TOP OF RISER / GROUND SURFACE	19.18 / 19.47						
0	FILL, sand and gravel with trace silt, loose, coarse, no structure, gray to medium brown, dry	18.47	CONCRETE; 2"Ø PVC RISER; BENTONITE	027				0
2	FILL, clay and red brick, slightly plastic, no structure, medium brown and red, dry to slighty damp	16.67		028				
4	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic			029				
6			WELL SCREEN; SAND PACK					
8			8" Ø BOREHOLE					
10	- Refusal @ 9.7 ft BGS END OF BOREHOLE @ 9.7ft BGS	9.77						
12	Soil samples for chemical analysis from 0.5 to 1.0, 2.4 to 3.0, and 8.0 to 10.0 feet BGS. Well installed through HSA.							
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

WELL DETAILS
Screened interval:
14.77 to 9.77ft Site Coords
4.70 to 9.70ft BGS
Length: 5ft
Diameter: 2in
Slot Size: .02
Material: PVC
Seal:
17.77 to 15.77ft Site Coords
1.70 to 3.70ft BGS
Material: Bentonite
Sand Pack:
15.77 to 9.77ft Site Coords
3.70 to 9.70ft BGS
Material: Size 00N Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-4-0506
DATE COMPLETED: May 3, 2006
DRILLING METHOD: Direct Push
FIELD PERSONNEL: P. Kryger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Borehole	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 4448.36 EASTING: 4135.95 GROUND SURFACE	16.51						
0	ASPHALT	16.31		038				0
	FILL, sand and gravel, loose, damp, medium gray to brown, slag	15.11	Bentonite					0
2	FILL, clay firm, no sructure, red gray mottling, damp, medium brown	14.21		039				0
	FILL, sand and gravel, loose, damp, medium gray to brown, slag	13.51						
4	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic							0
6								
8	- Refusal @ 8.0 ft BGS	8.51						
	END OF BOREHOLE @ 8.0ft BGS							
10	Soil samples for chemical analysis from 0.3 to 1.2 and 2.3 to 3.0 feet BGS.							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-5-0506 / MW-5
DATE COMPLETED: May 2, 2006
DRILLING METHOD: Direct Push / HSA
FIELD PERSONNEL: P. Kryger / J Raby

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Monitoring Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 4396.38 EASTING: 3694.42 TOP OF RISER GROUND SURFACE	21.55 21.84						
0	FILL, sand and gravel with trace silt, loose, coarse, no structure, gray to medium brown, dry	20.64	CONCRETE	020				0
2	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic		2"Ø PVC RISER	021				324
4			BENTONITE					285
6			2"Ø PVC WELL SCREEN	022				325 4000 325
8			SAND PACK					
10	- Refusal @ 10.0 ft BGS	11.84	8" Ø BOREHOLE					
12	END OF BOREHOLE @ 10.0ft BGS Soil samples for chemical analysis from 0.5 to 1.2, 1.6 to 2.5, and 5.5 to 6.5 feet BGS. Well installed through HSA.							
14								
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WELL DETAILS
Screened interval:
16.84 to 11.84ft Site Coords
5.00 to 10.00ft BGS
Length: 5ft
Diameter: 2in
Slot Size: .02
Material: PVC
Seal:
19.84 to 17.84ft Site Coords
2.00 to 4.00ft BGS
Material: Bentonite
Sand Pack:
20.84 to 11.84ft Site Coords
1.00 to 10.00ft BGS
Material: Size 00N Sand

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (020)

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-6-0506
DATE COMPLETED: May 2, 2006
DRILLING METHOD: Direct Push
FIELD PERSONNEL: P. Kryger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Borehole	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 4503.17 EASTING: 3721.73 GROUND SURFACE	17.00						
0	FILL, sand and gravel with trace silt, loose, coarse, no structure, gray to medium brown, dry	16.10		011				0
2	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic		Bentonite	012				0
4	- Refusal @ 5.0 ft BGS	12.00						
	END OF BOREHOLE @ 5.0ft BGS							
6	Soil samples for chemical analysis from 0.5 to 1.0 and 1.5 to 2.0 feet BGS.							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-7-0506
DATE COMPLETED: May 2, 2006
DRILLING METHOD: Direct Push
FIELD PERSONNEL: P. Kryger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Borehole	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 4449.21 EASTING: 3763.74 GROUND SURFACE	18.59						
0	FILL, sand and gravel with trace silt, loose, coarse, no structure, gray to medium brown, dry	17.19		013				0
2	CH-SILTY CLAY, soft to firm, contains slag and mica, coarse grained, light to medium brown	16.79	Bentonite	014				0
4	CL-CLAY with SILT and GRAVEL, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic							0
6	- Refusal @ 7.0 ft BGS	11.59						
8	END OF BOREHOLE @ 7.0ft BGS Soil samples for chemical analysis from 0.5 to 1.0 and 1.5 to 1.9 feet BGS.							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-8-0506
DATE COMPLETED: May 2, 2006
DRILLING METHOD: Direct Push
FIELD PERSONNEL: P. Kryger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Borehole	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 4447.13 EASTING: 3867.22 GROUND SURFACE	16.85						
0	ASPHALT	16.65	Cold Patch Asphalt	015				0
	FILL, sand and gravel with trace silt, loose, coarse, no structure, gray to medium brown, dry			016				0
2		14.75	Bentonite					0
	CL-CH-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic			017				0
4								
6	- Refusal @ 7.0 ft BGS	9.85						
	END OF BOREHOLE @ 7.0ft BGS							
8	Soil samples for chemical analysis from 0.5 to 1.0, 1.4 to 2.0, and 2.9 to 3.3 feet BGS.							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-9-0506
DATE COMPLETED: May 2, 2006
DRILLING METHOD: Direct Push
FIELD PERSONNEL: P. Kryger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Borehole	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 4361.68 EASTING: 3764.96 GROUND SURFACE	20.57						
0	FILL, sand and gravel with trace silt, loose, coarse, no structure, gray to medium brown, dry	19.67		018				0
2	FILL, sand and gravel with clay, loose, coarse, no structure, gray to medium brown, dry		Bentonite	019				0
4	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic	16.57						
6								0
8	- Refusal @ 8.0 ft BGS	12.57						
	END OF BOREHOLE @ 8.0ft BGS							
10	Soil samples for chemical analysis from 0.5 to 1.0 and 2.0 to 2.5 feet BGS.							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (018, 019)

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-10-0506
DATE COMPLETED: May 2, 2006
DRILLING METHOD: Direct Push
FIELD PERSONNEL: P. Kryger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Borehole	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 4407.68 EASTING: 3892.52 GROUND SURFACE	17.27						
0	ASPHALT	16.97	Cold Patch Asphalt	025				0
	FILL, sand and gravel with trace silt, loose, coarse, no structure, gray to medium brown, dry	15.97		026				0
2	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic		Bentonite					
4								0
6	- Refusal @ 7.0 ft BGS							
	END OF BOREHOLE @ 7.0ft BGS	10.27						
8	Soil samples for chemical analysis from 0.5 to 1.0 and 1.3 to 1.8 feet BGS.							
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34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-11-0506
DATE COMPLETED: May 1, 2006
DRILLING METHOD: HSA
FIELD PERSONNEL: J. Raby

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Borehole	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 4204.88 EASTING: 3675.52 GROUND SURFACE	20.11						
0	FILL, sand and gravel with trace silt, loose, coarse, no structure, gray to medium brown, dry	18.81	Bentonite	003 SS1		0.8	10	0
2	CH-CLAY, stiff, plastic with added water, massive structure, light brown, dry			004 SS2		1.1	13	0
4				SS3		0.0	17	0
6	- Refusal @ 7.1 ft BGS	13.01		SS4			>50	
8	END OF BOREHOLE @ 7.1ft BGS Soil samples for chemical analysis from 0.0 to 0.5 and 2.0 to 4.0 feet BGS.							
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NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-12-0506
DATE COMPLETED: May 3, 2006
DRILLING METHOD: Direct Push
FIELD PERSONNEL: P. Kryger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Borehole	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 4303.05 EASTING: 3858.76 GROUND SURFACE	18.16						
0	FILL, sand and gravel with trace silt, loose, coarse, no structure, gray to medium brown, dry			032				0
2				033				0
		15.66						
4	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic			034				
6								0 0
8	- Refusal @ 7.9 ft BGS	10.26						
	END OF BOREHOLE @ 7.9ft BGS							
10	Soil samples for chemical analysis from 0.3 to 1.0, 1.2 to 2.5, and 4.0 to 5.0 feet BGS.							
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30								
32								
34								

Bentonite

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS ( )

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-13-0506
DATE COMPLETED: May 3, 2006
DRILLING METHOD: Direct Push
FIELD PERSONNEL: P. Kryger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Borehole	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 4345.35 EASTING: 3939.36 GROUND SURFACE	18.40						
0	FILL, sand and gravel with trace silt, loose, coarse, no structure, gray to medium brown, dry			035				0
2				036				0
		15.90						
4	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic			037				0
6								
8	- Refusal @ 8.0 ft BGS							
		10.40						
	END OF BOREHOLE @ 8.0ft BGS							
10	Soil samples for chemical analysis from 0.5 to 1.1, 1.5 to 2.5, and 4.0 to 5.0 feet BGS.							
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34								

Bentonite

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (035) (036) (037)

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-14-0506 / MW-7
DATE COMPLETED: May 2, 2006
DRILLING METHOD: Direct Push / HSA
FIELD PERSONNEL: P. Kryger / J Raby

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Monitoring Well	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 4394.93 EASTING: 4039.32 TOP OF RISER GROUND SURFACE	17.00 17.61						
0	FILL, clay and red brick, slightly plastic, no structure, medium brown and red, dry to slighty damp		CONCRETE 2"Ø PVC RISER BENTONITE	030				0
2		14.61		031				0
4	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic		WELL SCREEN SAND PACK					0
6								
8	- Refusal @ 8.7 ft BGS	8.91	8" Ø BOREHOLE					
10	END OF BOREHOLE @ 8.7ft BGS Soil samples for chemical analysis from 0.5 to 1.5 and 2.5 to 3.0 feet BGS. Well installed through HSA.		WELL DETAILS Screened interval: 13.91 to 8.91ft Site Coords 3.70 to 8.70ft BGS Length: 5ft Diameter: 2in Slot Size: .02 Material: PVC Seal: 15.91 to 14.41ft Site Coords 1.70 to 3.20ft BGS Material: Bentonite Sand Pack: 14.41 to 8.91ft Site Coords 3.20 to 8.70ft BGS Material: Size 00N Sand					
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26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (030)

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

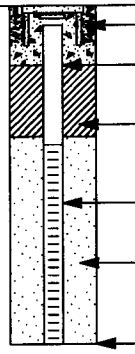
HOLE DESIGNATION: BH-15-0506 / MW-8
DATE COMPLETED: May 2, 2006
DRILLING METHOD: Direct Push / HSA
FIELD PERSONNEL: P. Kryger / J Raby

NORTHING: 4749.32
EASTING: 4055.29

TOP OF RISER 18.92
GROUND SURFACE 19.56

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords
0	FILL, sand and gravel with trace silt, loose, coarse, no structure, gray to medium brown, dry	
4	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic	16.56
8	Not Sampled	12.06
12	CH-CLAY, stiff, plastic with added water, massive structure, light brown, dry	7.56
16	- Refusal @ 16.9 ft BGS	
	END OF BOREHOLE @ 16.9ft BGS	2.66
	Soil samples for chemical analysis from 1.5 to 2.0 and 3.0 to 3.5 feet BGS. Well installed throught HSA.	

Monitoring Well



WELL DETAILS
Screened interval:
16.06 to 11.06ft Site Coords
3.50 to 8.50ft BGS
Length: 5ft
Diameter: 2in
Slot Size: .02
Material: PVC
Seal:
18.06 to 16.26ft Site Coords
1.50 to 3.30ft BGS
Material: Bentonite
Sand Pack:
16.26 to 11.06ft Site Coords
3.30 to 8.50ft BGS
Material: Size 00N Sand

SAMPLE NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
007				0
008				0
SS1			5	
SS2			4	
SS3			>50	

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-16-0506
DATE COMPLETED: May 2, 2006
DRILLING METHOD: Direct Push
FIELD PERSONNEL: P. Kryger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Borehole	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	NORTHING: 4712.57 EASTING: 3985.95 GROUND SURFACE	19.23						
0	FILL, clay and red brick, slightly plastic, no structure, medium brown and red, dry to slighty damp			009				0
2				010				
4	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic	16.03	Bentonite					0
6								
8	- Refusal @ 8.0 ft BGS	11.23						
10	END OF BOREHOLE @ 8.0ft BGS Soil samples for chemical analysis from 0.75 to 1.2 and 2.5 to 3.2 feet BGS.							
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14								
16								
18								
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22								
24								
26								
28								
30								
32								
34								

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (009, 010)

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Niagara Ceramics Site
PROJECT NUMBER: 37191
CLIENT: Hodgson Russ
LOCATION: 51 Hayes Place, Buffalo, NY

HOLE DESIGNATION: BH-17-0506
DATE COMPLETED: May 2, 2006
DRILLING METHOD: Direct Push
FIELD PERSONNEL: P. Kryger

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft Site Coords	Borehole	SAMPLE NUMBER	SAMPLE INTERVAL	SAMPLE REC (ft)	SAMPLE 'N' VALUE
	NORTHING: 4787.41 EASTING: 4130.76 GROUND SURFACE	19.06					
0	FILL, clay and red brick, slightly plastic, no structure, medium brown and red, dry to slighty damp			005 006			
2		16.56	Bentonite				
4	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic						
6							
8	- Refusal @ 8.0 ft BGS END OF BOREHOLE @ 8.0ft BGS	11.06					
10	Soil samples for chemical analysis from 0.0 to 0.5 and 1.0 to 1.5 feet BGS.						
12							
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE

CHEMICAL ANALYSIS (oval)

OVERBURDEN LOG 37191.GPJ CRA_CORP.GDT 6/14/06

APPENDIX C

ANALYTICAL DATA AND QUALITY ASSURANCE REVIEW

CONESTOGA-ROVERS & ASSOCIATES

2055 Niagara Falls Blvd., Suite #3
Niagara Falls, New York 14304
Telephone: (716) 297-6150 Fax: (716) 297-2265
www.CRAworld.com

MEMORANDUM

TO: Carol Barron

REF. NO.: 37191

FROM: Susan C. Scrocchi/jbh/4 SCS/jbh

DATE: May 24, 2006

Via E-Mail and U.S. Mail

RE: **Data Quality Assessment and Validation**
Soil and Groundwater Sampling
Niagara Ceramics
May 2006

PREVIOUSLY TRANSMITTED BY E-MAIL

The following details a quality assessment and validation of the analytical data resulting from the May 2006, collection of groundwater and soil samples from the Niagara Ceramics Site in Buffalo, New York. The sample summary detailing sample identification, sample location, quality control samples, and analytical parameters is presented in Table 1. Sample analysis was completed at Severn Trent Laboratories (STL), in Pittsburgh, Pennsylvania, in accordance with the methodologies presented in Table 2. Summaries of the analytical results are presented in Tables 3A and 3B.

The quality control (QC) criteria used to assess the data were established by the methods and with following guidance documents:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", United States Environmental Protection Agency (USEPA) 540/R-99/008, October 1999; and

ii) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Review", USEPA 540/R-94/013, February 1994.

These guidelines are collectively referred to as "Guidelines" in this memorandum.

Sample Quantitation

The laboratory reported detected concentrations of volatile organic compounds (VOC), semi-volatile organic compounds (SVOC), and lead below the laboratory's practical quantitation limit (PQL)/report limit (RL) but above the laboratory's method detection limit (MDL). The laboratory flagged these sample concentrations with a "J". These concentrations should be qualified as estimated (J) values unless qualified otherwise in this memorandum.

Sample Preservation and Holding Times

Sample holding time periods and preservation requirements are summarized in the analytical methods. All sample extractions and/or analyses were performed within the specified holding times.

All samples were properly preserved and cooled to 4°C(±2°C) after collection.

Gas Chromatography/Mass Spectrometer (GC/MS) - Tuning and Mass Calibration (Instrument Performance Check) - Organic Analyses

To ensure adequate mass resolution, identification, and to some degree, sensitivity; the performance of each GC/MS instrument used for VOC and SVOC analyses was checked at the beginning of each 12-hour period using bromofluorobenzene (BFB) and decafluorotriphenylphosphine (DFTPP), respectively. The resulting spectra must meet the criteria cited in the "Guidelines" before initiating an analysis sequence.

Instrument performance check data were reviewed. These tuning compounds were analyzed at the required frequency throughout the VOC and SVOC analyses. The results of all instrument performance checks were within the acceptance criteria, indicating acceptable instrument performance.

Initial Calibration - Organic Analyses

Initial calibration data are used to demonstrate that each instrument is capable of generating acceptable quantitative data. A five point calibration curve containing all compounds of interest is analyzed to characterize instrument response for each over a specific concentration range.

Initial calibration criteria for organic analyses are evaluated against the following criteria:

i) must meet a minimum mean relative response factor (RRF) of 0.05; and

ii) the percent relative standard deviation (%RSD) values must not exceed 30.0 percent or a minimum coefficient of determination of 0.99 if quadratic equation calibration curves are used.

Calibration standards were analyzed at the required frequency and the results met the above criteria for linearity. Acetone, methyl acetate, 2-butanone, and 1,2-dibromo-3-chloropropane exhibited low sensitivity with a response factor of less than 0.05. All associated results were non-detect and were rejected due to poor analyte sensitivity (see Table 4).

Continuing Calibration - Organic Analyses

To ensure that each instrument was capable of producing acceptable quantitative data over the analysis period, continuing calibration standards must be analyzed every 12 hours for GC/MS analyses and every 10 samples by GC. The following criteria are employed to evaluate the continuing calibration data:

i) must meet a minimum mean RRF of 0.05;

ii) the percent difference (%D) between the mean initial calibration RRF and the continuing calibration RRF must not exceed 25 percent; and

iii) the percent drift between the true value and the continuing calibration value must not exceed 25 percent.

Calibration standards were analyzed at the required frequency and the results met the above criteria for instrument sensitivity and linearity of response for all analytes of interest with the following exceptions:

i) various VOCs and SVOCs exhibited variability between the initial and continuing response factors. All associated results were qualified as estimated; and

ii) low response factors (<0.05) were observed for some VOCs. All associated results were non-detect and rejected based on the poor analyte sensitivity.

A summary of the qualified results is presented in Table 5.

Initial Calibration - Inorganic Analyses

Initial calibration of the instruments ensures that they are capable of producing satisfactory quantitative data at the beginning of a series of analyses. For trace inductively coupled plasma (ICP) analysis, a calibration blank and at least one standard must be analyzed at each wavelength to establish the analytical curve.

After calibration, an initial calibration verification (ICV) standard must be analyzed to verify the analytical accuracy of the calibration curves. All analyte recoveries from the analyses of the ICVs must be within the control limit of 90-110 percent.

A review of the laboratory data showed that all inorganic initial calibration curves and ICVs were analyzed at the appropriate frequency and were within the acceptance criteria.

Continuing Calibration - Inorganic Analyses

Continuing calibration verification (CCV) standards are analyzed at method specified frequency (one every 10 samples). The CCVs must meet the percent recovery control limits specified above for the ICVs. Criteria for inorganic analyses are the same criteria as used for assessing the initial calibration data.

A review of the laboratory data showed that CCVs were analyzed at the appropriate frequency and the data were within the acceptance criteria.

Method Blank Samples

Method blank samples are prepared from a purified sample matrix and are processed concurrently with investigative samples to assess the presence and the magnitude of sample contamination introduced during sample analysis. Method blank samples are analyzed at a minimum frequency of one per analytical batch and target analytes should be non-detect.

Method blanks were analyzed at the recommended frequency and the results were non-detect for all analytes of interest with the following exceptions:

i) trichloroethene was detected in the method blank at 1.7 parts per billion (ppb). All associated sample results with similar concentrations were qualified as non-detect (see Table 6); and

ii) lead was detected at 1.6 ppb in the method blank for dissolved metals. The associated results were non-detect and would not have been impacted.

Laboratory Blank Samples - Inorganic Analyses

Metals analyses include the analysis of initial calibration blanks (ICB) and continuing calibration blanks (CCB) to assess the presence and the magnitude of sample contamination introduced during sample analysis. The CCBs are analyzed at a minimum frequency of one every 10 samples and target analytes should be non-detect.

All ICBs and CCBs were non-detect.

Surrogate Compounds - Organic Analyses

Individual sample performance for organic analyses was monitored by assessing the results of surrogate compound percent recoveries. Surrogate percent recoveries are reviewed against the laboratory developed control limits provided in the analytical report.

All surrogate recoveries met the method criteria, demonstrating acceptable analytical efficiency for these analyses.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To assess the long term accuracy and precision of the analytical methods on various matrices, MS/MSD percent recoveries and relative percent differences (RPD) of the concentrations were determined. The organic MS/MSD percent recovery and RPD control limits are established by the laboratory. The inorganic control limits are defined by the methods and the "Guidelines", which require recoveries between 75 to 125 percent with RPDs less than 20 percent.

All MS/MSD recoveries were acceptable with the exception of low lead recoveries for sample S-37191-050206-PK-025. All associated lead results were qualified as estimated to reflect the implied low bias (see Table 7).

Laboratory Control Sample (LCS)

The LCS analysis serves as a monitor of the overall performance in all steps of the sample analysis and are analyzed with each sample batch. The LCS percent recoveries were evaluated against method and laboratory established control limits.

The LCS percent recoveries were all within the laboratory control limits indicating acceptable analytical accuracy.

Internal Standard (IS) Summaries - Organic Analyses

To correct for variability in the GC/MS response and sensitivity, IS compounds are added to all samples. All results are calculated as a ratio of the compound and associated IS response. Overall instrument stability and performance for VOC and SVOC analyses were monitored using IS peak area and retention time (RT) data. The IS peak areas and RTs of the samples are required to meet the following criteria:

i) IS area counts must not vary by more than a factor of two (-50 percent to +100 percent) from the associated continuing calibration standard IS area counts; and

ii) the RT of the IS must not vary by more than plus or minus 30 seconds from the associated continuing calibration standard.

A review of the VOC and SVOC internal standard data showed that the IS area counts and retention time data were within the acceptance criteria for all VOC samples. Two SVOC analyses yielded high IS recoveries. All associated compounds with positive results were qualified as estimated (see Table 8). All associated non-detect results would not have been impacted.

ICP ICS Analysis - Inorganic Analyses

To verify that proper inter-element and background correction factors had been established by the laboratory for metals analyses, the ICP ICS are analyzed. The ICSs are evaluated against recovery control limits of 80 to 120 percent.

The ICS analysis results were evaluated for all samples and were within the control limits.

Serial Dilution - Inorganic Analyses

The %D between a serial dilution of a sample for each matrix was monitored to determine physical or chemical interference. A minimum of one sample per 20 investigative samples is analyzed at a five-fold dilution. The serial dilution results must agree within 10 %D of the original results for samples with detected concentrations greater than 50 times the instrument detection limit.

The %D acceptance criteria was met for all metals.

Target Compound Identification

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound retention time and mass spectra (if applicable) were evaluated according to identification criteria established by the methods. The organic compounds reported adhered to the specified identification criteria.

Target Compound Quantitation

The reported quantitation results and detection limits were checked to ensure results reported were accurate. No discrepancies were found between the raw data and the sample results reported by the laboratory.

Field Quality Assurance/Quality Control (QA/QC)

The field QA/QC consisted of one field duplicate sample set and a trip blank.

Overall precision for the sampling event and laboratory procedures was monitored using the results of the field duplicate sample sets. The RPDs associated with these duplicate samples must be less than 50 percent for water and 100 percent for soil/sediment. If the reported concentration in either the investigative sample

or its duplicate is less than five times the RL, the evaluation criteria is one times the RL value for water or two times for soil/sediment.

All field duplicate results were acceptable indicating good field and analytical precision.

To monitor potential cross-contamination of VOC during aqueous sample transportation and storage, a trip blank was submitted to the laboratory for VOC analysis with each shipping cooler containing multiple samples.

All trip blank results were non-detect for the compounds of interest.

System Performance

System performance between various quality control checks was evaluated to monitor for changes that may have caused the degradation of data quality. No technical problems or chromatographic anomalies were observed which would require qualification of the data.

Overall Assessment

The data were found to exhibit acceptable levels of accuracy and precision, based on the provided information, and may be used with the qualifications noted with the following exceptions:

i) some VOC data being rejected in several samples due to an initial calibration violation; and

ii) some VOC data being rejected in several samples due to continuing calibration violations.

TABLE 1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
SOIL AND GROUNDWATER SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

					Analysis/Parameters				
Sample I.D.	*Location I.D.*	*Depth (ft bgs)*	*Collection Date (mm/dd/yy)*	*Collection Time (hr:min)*	*VOCs*	*SVOCs*	*Lead-total*	*Lead-dissolved*	*Comments*
S-37191-050106-JRR-001	BH-2	0 - 1	05/01/06	11:15			X		
S-37191-050106-JRR-002	BH-2	8 - 10	05/01/06	11:50	X	X			
S-37191-050106-JRR-003	BH-11	0 - 0.5	05/01/06	13:00			X		
S-37191-050106-JRR-004	BH-11	0.5 - 3	05/01/06	13:10			X		
S-37191-050206-PK-005	BH-17	0 - 0.5	05/02/06	8:40			X		
S-37191-050206-PK-006	BH-17	1 - 1.5	05/02/06	8:50			X		
S-37191-050206-PK-007	BH-15	1.5 - 2	05/02/06	*9:10*			X		
S-37191-050206-PK-008	BH-15	3 - 3.5	05/02/06	9:15			X		
S-37191-050206-PK-009	BH-16	0.75 - 1.2	05/02/06	9:40			X		
S-37191-050206-PK-010	BH-16	2.5 - 3.2	05/02/06	9:45			X		
S-37191-050206-PK-011	BH-6	0 - 0.5	05/02/06	10:00			X		
S-37191-050206-PK-012	BH-6	1.5 - 2	05/02/06	10:05	X	X			
S-37191-050206-PK-013	BH-7	0.5 - 1	05/02/06	10:25			X		
S-37191-050206-PK-014	BH-7	1.4 - 1.8	05/02/06	10:30			X		
S-37191-050206-PK-015	BH-8	0.5 - 1	05/02/06	11:00			X		
S-37191-050206-PK-016	BH-8	1.4 - 2.1	05/02/06	11:10	X	X	X		
S-37191-050206-PK-017	BH8	2.9 - 3.3	05/02/06	11:15	X	X			
S-37191-050206-PK-018	BH-9	0.5 - 1	05/02/06	12:20			X		
S-37191-050206-PK-019	BH-9	2 - 2.5	05/02/06	12:25			X		
S-37191-050206-PK-020	BH-5	0.5 - 1.2	05/02/06	12:50			X		
S-37191-050206-PK-021	BH-5	1.6 - 2.5	05/02/06	12:55	X	X	X		
S-37191-050206-PK-022	BH-5	5.5 - 6.5	05/02/06	13:00	X	X			
S-37191-050206-PK-023	BH-1	0.5 - 1	05/02/06	13:15			X		
S-37191-050206-PK-024	BH-1	2 - 2.4	05/02/06	13:20			X		
S-37191-050206-PK-025	BH-10	0.5 - 1	05/02/06	13:45			X		
S-37191-050206-PK-026	BH-10	1.3 - 1.8	05/02/06	13:50			X		
S-37191-050206-PK-027	BH-3	0.5 - 1	05/02/06	14:35			X		
S-37191-050206-PK-028	BH-3	2 - 3	05/02/06	14:45	X	X	X		
S-37191-050206-PK-029	BH-3	4 - 5	05/02/06	14:55	X	X			
S-37191-050206-PK-030	BH-14	0.5 -1.5	05/02/06	15:15			X		
S-37191-050206-PK-031	BH-14	2.5 - 3	05/02/06	15:20			X		

TABLE 1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
SOIL AND GROUNDWATER SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

					Analysis/Parameters				
Sample I.D.	*Location I.D.*	*Depth (ft bgs)*	*Collection Date (mm/dd/yy)*	*Collection Time (hr:min)*	*VOCs*	*SVOCs*	*Lead-total*	*Lead-dissolved*	*Comments*
S-37191-050306-PK-032	BH-12	0.3 - 1	05/03/06	8:55			X		
S-37191-050306-PK-033	BH-12	1.2 - 2.5	05/03/06	9:00	X	X	X		
S-37191-050306-PK-034	BH-12	4 - 5	05/03/06	9:05	X	X			
S-37191-050306-PK-035	BH-13	0.5 - 1.1	05/03/06	9:20			X		
S-37191-050306-PK-036	BH-13	1.5 - 2.5	05/03/06	9:23	X	X	X		
S-37191-050306-PK-037	BH-13	4 - 5	05/03/06	9:25	X	X			
S-37191-050306-PK-038	BH-4	0.3 - 1.2	05/03/06	9:45			X		
S-37191-050306-PK-039	BH-4	2.3 - 3	05/03/06	9:50	X		X		
GW-37191-051106-JRR-001	MW-7 /BH-14	-	05/11/06	11:35	X				
GW-37191-051106-JRR-002	MW-6 / BH-3	-	05/11/06	12:10	X				
GW-37191-051106-JRR-003	MW-4 / BH-2	-	05/11/06	12:35	X				
GW-37191-051106-JRR-004	MW-8 / BH-15	-	05/11/06	13:30	X		X	X	
GW-37191-051106-JRR-005	MW-9 / BH-1	-	05/11/06	14:10	X				
GW-37191-051106-JRR-006	MW-5 / BH-5	-	05/11/06	15:00	X				
GW-37191-051106-JRR-007	MW-5 / BH-5	-	05/11/06	15:10	X				Field duplicate of GW-37191-051106-JRR-006

Notes:
ft bgs Feet Below Ground Surface.
SVOCs Semi-Volatile Organic Compounds.
VOCs Volatile Organic Compounds.

TABLE 2

SUMMARY OF ANALYTICAL METHODS
SOIL AND GROUNDWATER SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

Parameter	*Method* [1]
TCL VOCs	SW-846 8260B
TCL SVOCs	SW-846 8270C
Selected Metals (total and dissolved)	SW-846 6010/7000 Series

Notes:

[1] "Test Methods for Solid Waste/Physical Chemical Methods", SW-846, 3rd Edition, September 1986 (with all subsequent revisions).

SVOCs Semi-Volatile Organic Compounds.

TCL Target Compound List.

VOC Volatile Organic Compounds.

TABLE 3A

ANALYTICAL RESULTS SUMMARY
GROUNDWATER SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

Sample Location:		*MW-4/BH-2*	*MW-5/BH-5*	*MW-5/BH-5*	*MW-6/BH-3*	*MW-7/BH-14*	*MW-8/BH-15*	*MW-9/BH-1*
Sample ID:		*GW-37191-051106-JRR-003*	*GW-37191-051106-JRR-006*	*GW-37191-051106-JRR-007*	*GW-37191-051106-JRR-002*	*GW-37191-051106-JRR-001*	*GW-37191-051106-JRR-004*	*GW-37191-051106-JRR-005*
Sample Date:		*5/11/2006*	*5/11/2006*	*5/11/2006*	*5/11/2006*	*5/11/2006*	*5/11/2006*	*5/11/2006*
				Duplicate				
Parameters	*Units*							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	3.0 J	5.0 U
Acetone	µg/L	400 U	120000 U	120000 U	5000 U	20 U	20 U	20 U
Benzene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	100 UJ	30000 UJ	30000 UJ	1200 UJ	5.0 UJ	5.0 UJ	5.0 UJ
Chloroform (Trichloromethane)	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	960	130000	140000	24000	5.0 U	8.5	5.0 U
cis-1,3-Dichloropropene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Cyclohexane	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Methyl acetate	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Methyl cyclohexane	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Methyl Tert Butyl Ether	µg/L	100 U	30000 U	30000 U	1200 U	1.1 J	5.0 U	5.0 U
Methylene chloride	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U

TABLE 3A

ANALYTICAL RESULTS SUMMARY
GROUNDWATER SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	*MW-4/BH-2*	*MW-5/BH-5*	*MW-5/BH-5*	*MW-6/BH-3*	*MW-7/BH-14*	*MW-8/BH-15*	*MW-9/BH-1*
	Sample ID:	*GW-37191-051106-JRR-003*	*GW-37191-051106-JRR-006*	*GW-37191-051106-JRR-007*	*GW-37191-051106-JRR-002*	*GW-37191-051106-JRR-001*	*GW-37191-051106-JRR-004*	*GW-37191-051106-JRR-005*
	Sample Date:	*5/11/2006*	*5/11/2006*	*5/11/2006*	*5/11/2006*	*5/11/2006*	*5/11/2006*	*5/11/2006*
				Duplicate				
Parameters	*Units*							
Volatile Organic Compounds								
Trichloroethene	µg/L	1600	540000	600000	12000	5.0 U	31	5.0 U
Trichlorofluoromethane (CFC-11)	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	µg/L	100 U	30000 U	30000 U	1200 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	100 U	30000 U	30000 U	570 J	5.0 U	5.0 U	5.0 U
Xylene (total)	µg/L	300 U	90000 U	90000 U	3800 U	15 U	15 U	15 U
Metals								
Lead	µg/L	-	-	-	-	-	46.0	-
Lead (Dissolved)	µg/L	-	-	-	-	-	3.0 U	-

Notes:
- \- Not analyzed.
- J Estimated.
- U Non-detect at associated value.
- UJ The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity.

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	BH-1	BH-1	BH-2	BH-2	BH-3	BH-3	BH-3
	Sample ID:	S-37191-050206-PK-023	S-37191-050206-PK-024	S-37191-050106-JRR-001	S-37191-050106-JRR-002	S-37191-050206-PK-027	S-37191-050206-PK-028	S-37191-050206-PK-029
	Sample Date:	5/2/2006	5/2/2006	5/1/2006	5/1/2006	5/2/2006	5/2/2006	5/2/2006
	Sample Depth:	0.5 - 1 ft	2 - 2.4 ft	0 - 1 ft	8 - 10 ft	0.5 - 1 ft	2 - 3 ft	4 - 5 ft
Parameters	*Units*							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
1,1,2,2-Tetrachloroethane	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
1,1,2-Trichloroethane	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
1,1-Dichloroethane	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
1,1-Dichloroethene	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
1,2,4-Trichlorobenzene	µg/Kg	-	-	-	5.5 UJ	-	6.2 U	6.1 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/Kg	-	-	-	R	-	R	R
1,2-Dibromoethane (Ethylene Dibromide)	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
1,2-Dichlorobenzene	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
1,2-Dichloroethane	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
1,2-Dichloropropane	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
1,3-Dichlorobenzene	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
1,4-Dichlorobenzene	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
2-Butanone (Methyl Ethyl Ketone)	µg/Kg	-	-	-	R	-	R	R
2-Hexanone	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/Kg	-	-	-	5.5 UJ	-	6.2 U	6.1 U
Acetone	µg/Kg	-	-	-	R	-	R	R
Benzene	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Bromodichloromethane	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Bromoform	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Bromomethane (Methyl Bromide)	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Carbon disulfide	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Carbon tetrachloride	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Chlorobenzene	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Chloroethane	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Chloroform (Trichloromethane)	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Chloromethane (Methyl Chloride)	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
cis-1,2-Dichloroethene	µg/Kg	-	-	-	6.4	-	6.2 U	6.1 U
cis-1,3-Dichloropropene	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Cyclohexane	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Dibromochloromethane	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Dichlorodifluoromethane (CFC-12)	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Ethylbenzene	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Isopropylbenzene	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Methyl acetate	µg/Kg	-	-	-	R	-	R	R
Methyl cyclohexane	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Methyl Tert Butyl Ether	µg/Kg	-	-	-	5.5 U	-	6.2 UJ	6.1 UJ
Methylene chloride	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Styrene	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Tetrachloroethene	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Toluene	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
trans-1,2-Dichloroethene	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
trans-1,3-Dichloropropene	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	*BH-1*	*BH-1*	*BH-2*	*BH-2*	*BH-3*	*BH-3*	*BH-3*
	Sample ID:	*S-37191-050206-PK-023*	*S-37191-050206-PK-024*	*S-37191-050106-JRR-001*	*S-37191-050106-JRR-002*	*S-37191-050206-PK-027*	*S-37191-050206-PK-028*	*S-37191-050206-PK-029*
	Sample Date:	*5/2/2006*	*5/2/2006*	*5/1/2006*	*5/1/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
	Sample Depth:	*0.5 - 1 ft*	*2 - 2.4 ft*	*0 - 1 ft*	*8 - 10 ft*	*0.5 - 1 ft*	*2 - 3 ft*	*4 - 5 ft*
Parameters	*Units*							
Volatiles (Cont'd.)								
Trichloroethene	µg/Kg	-	-	-	18	-	6.2 U	6.1 U
Trichlorofluoromethane (CFC-11)	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Trifluorotrichloroethane (Freon 113)	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Vinyl chloride	µg/Kg	-	-	-	5.5 U	-	6.2 U	6.1 U
Xylene (total)	µg/Kg	-	-	-	17 U	-	19 U	18 U
Semi-Volatile Organic Compounds								
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	µg/Kg	-	-	-	390 U	-	410 U	410 U
2,4,5-Trichlorophenol	µg/Kg	-	-	-	390 U	-	410 U	410 U
2,4,6-Trichlorophenol	µg/Kg	-	-	-	390 U	-	410 U	410 U
2,4-Dichlorophenol	µg/Kg	-	-	-	390 U	-	410 U	410 U
2,4-Dimethylphenol	µg/Kg	-	-	-	390 U	-	410 U	410 U
2,4-Dinitrophenol	µg/Kg	-	-	-	1900 U	-	2000 U	2000 U
2,4-Dinitrotoluene	µg/Kg	-	-	-	390 U	-	410 U	410 U
2,6-Dinitrotoluene	µg/Kg	-	-	-	390 U	-	410 U	410 U
2-Chloronaphthalene	µg/Kg	-	-	-	390 U	-	410 U	410 U
2-Chlorophenol	µg/Kg	-	-	-	390 U	-	410 U	410 U
2-Methylnaphthalene	µg/Kg	-	-	-	390 U	-	410 U	410 U
2-Methylphenol	µg/Kg	-	-	-	390 U	-	410 U	410 U
2-Nitroaniline	µg/Kg	-	-	-	1900 U	-	2000 U	2000 U
2-Nitrophenol	µg/Kg	-	-	-	390 U	-	410 U	410 U
3,3'-Dichlorobenzidine	µg/Kg	-	-	-	1900 U	-	2000 U	2000 U
3-Nitroaniline	µg/Kg	-	-	-	1900 U	-	2000 U	2000 U
4,6-Dinitro-2-methylphenol	µg/Kg	-	-	-	1900 U	-	2000 U	2000 U
4-Bromophenyl phenyl ether	µg/Kg	-	-	-	390 U	-	410 U	410 U
4-Chloro-3-methylphenol	µg/Kg	-	-	-	390 U	-	410 U	410 U
4-Chloroaniline	µg/Kg	-	-	-	390 U	-	410 U	410 U
4-Chlorophenyl phenyl ether	µg/Kg	-	-	-	390 U	-	410 U	410 U
4-Methylphenol	µg/Kg	-	-	-	390 U	-	410 U	410 U
4-Nitroaniline	µg/Kg	-	-	-	1900 U	-	2000 U	2000 U
4-Nitrophenol	µg/Kg	-	-	-	1900 U	-	2000 U	2000 U
Acenaphthene	µg/Kg	-	-	-	390 U	-	410 U	410 U
Acenaphthylene	µg/Kg	-	-	-	14 J	-	410 U	410 U
Acetophenone	µg/Kg	-	-	-	390 U	-	410 U	410 U
Anthracene	µg/Kg	-	-	-	29 J	-	410 U	410 U
Atrazine	µg/Kg	-	-	-	390 U	-	410 U	410 U
Benzaldehyde	µg/Kg	-	-	-	390 U	-	410 U	410 U
Benzo(a)anthracene	µg/Kg	-	-	-	80 J	-	23 J	410 U
Benzo(a)pyrene	µg/Kg	-	-	-	98 J	-	22 J	410 U
Benzo(b)fluoranthene	µg/Kg	-	-	-	110 J	-	33 J	410 U
Benzo(g,h,i)perylene	µg/Kg	-	-	-	94 J	-	23 J	410 U
Benzo(k)fluoranthene	µg/Kg	-	-	-	44 J	-	11 J	410 U
Biphenyl	µg/Kg	-	-	-	390 U	-	410 U	410 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	BH-1	BH-1	BH-2	BH-2	BH-3	BH-3	BH-3
	Sample ID:	S-37191-050206-PK-023	S-37191-050206-PK-024	S-37191-050106-JRR-001	S-37191-050106-JRR-002	S-37191-050206-PK-027	S-37191-050206-PK-028	S-37191-050206-PK-029
	Sample Date:	5/2/2006	5/2/2006	5/1/2006	5/1/2006	5/2/2006	5/2/2006	5/2/2006
	Sample Depth:	0.5 - 1 ft	2 - 2.4 ft	0 - 1 ft	8 - 10 ft	0.5 - 1 ft	2 - 3 ft	4 - 5 ft
Parameters	*Units*							
Semi-Volatiles (Cont'd.)								
bis(2-Chloroethoxy)methane	µg/Kg	-	-	-	390 U	-	410 U	410 U
bis(2-Chloroethyl)ether	µg/Kg	-	-	-	390 U	-	410 U	410 U
bis(2-Ethylhexyl)phthalate	µg/Kg	-	-	-	390 U	-	410 U	410 U
Butyl benzylphthalate	µg/Kg	-	-	-	18 J	-	24 J	22 J
Caprolactam	µg/Kg	-	-	-	390 U	-	410 U	410 U
Carbazole	µg/Kg	-	-	-	11 J	-	410 U	410 U
Chrysene	µg/Kg	-	-	-	87 J	-	31 J	410 U
Dibenz(a,h)anthracene	µg/Kg	-	-	-	21 J	-	410 U	410 U
Dibenzofuran	µg/Kg	-	-	-	11 J	-	410 U	410 U
Diethyl phthalate	µg/Kg	-	-	-	390 U	-	410 U	410 U
Dimethyl phthalate	µg/Kg	-	-	-	390 U	-	410 U	410 U
Di-n-butylphthalate	µg/Kg	-	-	-	390 U	-	410 U	410 U
Di-n-octyl phthalate	µg/Kg	-	-	-	390 U	-	410 U	410 U
Fluoranthene	µg/Kg	-	-	-	140 J	-	42 J	410 U
Fluorene	µg/Kg	-	-	-	390 U	-	410 U	410 U
Hexachlorobenzene	µg/Kg	-	-	-	390 U	-	410 U	410 U
Hexachlorobutadiene	µg/Kg	-	-	-	390 U	-	410 U	410 U
Hexachlorocyclopentadiene	µg/Kg	-	-	-	1900 U	-	2000 U	2000 U
Hexachloroethane	µg/Kg	-	-	-	390 U	-	410 U	410 U
Indeno(1,2,3-cd)pyrene	µg/Kg	-	-	-	97 J	-	25 J	410 U
Isophorone	µg/Kg	-	-	-	390 U	-	410 U	410 U
Naphthalene	µg/Kg	-	-	-	390 U	-	410 U	410 U
Nitrobenzene	µg/Kg	-	-	-	390 U	-	410 U	410 U
N-Nitrosodi-n-propylamine	µg/Kg	-	-	-	390 U	-	410 U	410 U
N-Nitrosodiphenylamine	µg/Kg	-	-	-	390 U	-	410 U	410 U
Pentachlorophenol	µg/Kg	-	-	-	1900 U	-	2000 U	2000 U
Phenanthrene	µg/Kg	-	-	-	76 J	-	35 J	410 U
Phenol	µg/Kg	-	-	-	9.4 J	-	410 U	410 U
Pyrene	µg/Kg	-	-	-	130 J	-	37 J	410 U
Metals								
Lead	mg/kg	545	144	816	-	2500 J	18.3 J	-

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	*BH-1*	*BH-1*	*BH-2*	*BH-2*	*BH-3*	*BH-3*	*BH-3*
	Sample ID:	*S-37191-050206-PK-023*	*S-37191-050206-PK-024*	*S-37191-050106-JRR-001*	*S-37191-050106-JRR-002*	*S-37191-050206-PK-027*	*S-37191-050206-PK-028*	*S-37191-050206-PK-029*
	Sample Date:	*5/2/2006*	*5/2/2006*	*5/1/2006*	*5/1/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
	Sample Depth:	*0.5 - 1 ft*	*2 - 2.4 ft*	*0 - 1 ft*	*8 - 10 ft*	*0.5 - 1 ft*	*2 - 3 ft*	*4 - 5 ft*
Parameters	*Units*							
General Chemistry								
Total Solids	%	74.2	76.2	87.7	90.3	81.4	81.1	81.3

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	BH-4	BH-4	BH-5	BH-5	BH-5	BH-6	BH-6
	Sample ID:	S-37191-050306-PK-038	S-37191-050306-PK-039	S-37191-050206-PK-020	S-37191-050206-PK-021	S-37191-050206-PK-022	S-37191-050206-PK-011	S-37191-050206-PK-012
	Sample Date:	5/3/2006	5/3/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006
	Sample Depth:	0.3 - 1.2 ft	2.3 - 3 ft	0.5 - 1.2 ft	1.6 - 2.5 ft	5.5 - 6.5 ft	0 - 0.5 ft	1.5 - 2 ft
Parameters	*Units*							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
1,1,2,2-Tetrachloroethane	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
1,1,2-Trichloroethane	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
1,1-Dichloroethane	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
1,1-Dichloroethene	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
1,2,4-Trichlorobenzene	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 UJ
1,2-Dibromo-3-chloropropane (DBCP)	µg/Kg	-	-	-	29000 U	2900 U	-	R
1,2-Dibromoethane (Ethylene Dibromide)	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
1,2-Dichlorobenzene	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
1,2-Dichloroethane	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
1,2-Dichloropropane	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
1,3-Dichlorobenzene	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
1,4-Dichlorobenzene	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
2-Butanone (Methyl Ethyl Ketone)	µg/Kg	-	-	-	29000 U	2900 U	-	R
2-Hexanone	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 UJ
Acetone	µg/Kg	-	-	-	120000 U	11000 U	-	R
Benzene	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Bromodichloromethane	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Bromoform	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Bromomethane (Methyl Bromide)	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Carbon disulfide	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Carbon tetrachloride	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Chlorobenzene	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Chloroethane	µg/Kg	-	-	-	R	R	-	5.6 U
Chloroform (Trichloromethane)	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Chloromethane (Methyl Chloride)	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
cis-1,2-Dichloroethene	µg/Kg	-	-	-	15000 J	1200 J	-	2.5 J
cis-1,3-Dichloropropene	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Cyclohexane	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Dibromochloromethane	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Dichlorodifluoromethane (CFC-12)	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Ethylbenzene	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Isopropylbenzene	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Methyl acetate	µg/Kg	-	-	-	29000 U	2900 U	-	R
Methyl cyclohexane	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Methyl Tert Butyl Ether	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Methylene chloride	µg/Kg	-	-	-	29000 U	850 J	-	5.6 U
Styrene	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Tetrachloroethene	µg/Kg	-	-	-	29000 U	1300 J	-	5.6 U
Toluene	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
trans-1,2-Dichloroethene	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
trans-1,3-Dichloropropene	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	*BH-4*	*BH-4*	*BH-5*	*BH-5*	*BH-5*	*BH-6*	*BH-6*
	Sample ID:	*S-37191-050306-PK-038*	*S-37191-050306-PK-039*	*S-37191-050206-PK-020*	*S-37191-050206-PK-021*	*S-37191-050206-PK-022*	*S-37191-050206-PK-011*	*S-37191-050206-PK-012*
	Sample Date:	*5/3/2006*	*5/3/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
	Sample Depth:	*0.3 - 1.2 ft*	*2.3 - 3 ft*	*0.5 - 1.2 ft*	*1.6 - 2.5 ft*	*5.5 - 6.5 ft*	*0 - 0.5 ft*	*1.5 - 2 ft*
Parameters	*Units*							
Volatiles (Cont'd.)								
Trichloroethene	µg/Kg	-	-	-	670000	88000	-	6.0
Trichlorofluoromethane (CFC-11)	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Trifluorotrichloroethane (Freon 113)	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Vinyl chloride	µg/Kg	-	-	-	29000 U	2900 U	-	5.6 U
Xylene (total)	µg/Kg	-	-	-	87000 U	8600 U	-	17 U
Semi-Volatile Organic Compounds								
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	µg/Kg	-	-	-	380 U	380 U	-	380 U
2,4,5-Trichlorophenol	µg/Kg	-	-	-	380 U	380 U	-	380 U
2,4,6-Trichlorophenol	µg/Kg	-	-	-	380 U	380 U	-	380 U
2,4-Dichlorophenol	µg/Kg	-	-	-	380 U	380 U	-	380 U
2,4-Dimethylphenol	µg/Kg	-	-	-	380 U	380 U	-	380 U
2,4-Dinitrophenol	µg/Kg	-	-	-	1800 U	1800 U	-	1800 U
2,4-Dinitrotoluene	µg/Kg	-	-	-	380 U	380 U	-	380 U
2,6-Dinitrotoluene	µg/Kg	-	-	-	380 U	380 U	-	380 U
2-Chloronaphthalene	µg/Kg	-	-	-	380 U	380 U	-	380 U
2-Chlorophenol	µg/Kg	-	-	-	380 U	380 U	-	380 U
2-Methylnaphthalene	µg/Kg	-	-	-	170 J	270 J	-	380 U
2-Methylphenol	µg/Kg	-	-	-	8.7 J	380 U	-	380 U
2-Nitroaniline	µg/Kg	-	-	-	1800 U	1800 U	-	1800 U
2-Nitrophenol	µg/Kg	-	-	-	380 U	380 U	-	380 U
3,3'-Dichlorobenzidine	µg/Kg	-	-	-	1800 U	1800 U	-	1800 U
3-Nitroaniline	µg/Kg	-	-	-	1800 U	1800 U	-	1800 U
4,6-Dinitro-2-methylphenol	µg/Kg	-	-	-	1800 U	1800 U	-	1800 U
4-Bromophenyl phenyl ether	µg/Kg	-	-	-	380 U	380 U	-	380 U
4-Chloro-3-methylphenol	µg/Kg	-	-	-	380 U	380 U	-	380 U
4-Chloroaniline	µg/Kg	-	-	-	380 U	380 U	-	380 U
4-Chlorophenyl phenyl ether	µg/Kg	-	-	-	380 U	380 U	-	380 U
4-Methylphenol	µg/Kg	-	-	-	380 U	380 U	-	380 U
4-Nitroaniline	µg/Kg	-	-	-	1800 U	1800 U	-	1800 U
4-Nitrophenol	µg/Kg	-	-	-	1800 U	1800 U	-	1800 U
Acenaphthene	µg/Kg	-	-	-	380 U	14 J	-	380 U
Acenaphthylene	µg/Kg	-	-	-	380 U	380 U	-	380 U
Acetophenone	µg/Kg	-	-	-	380 U	380 U	-	380 U
Anthracene	µg/Kg	-	-	-	380 U	380 U	-	380 U
Atrazine	µg/Kg	-	-	-	380 U	380 U	-	380 U
Benzaldehyde	µg/Kg	-	-	-	380 U	380 U	-	380 U
Benzo(a)anthracene	µg/Kg	-	-	-	260 J	380 U	-	380 U
Benzo(a)pyrene	µg/Kg	-	-	-	110 J	40 J	-	380 U
Benzo(b)fluoranthene	µg/Kg	-	-	-	240 J	65 J	-	380 U
Benzo(g,h,i)perylene	µg/Kg	-	-	-	59 J	25 J	-	380 U
Benzo(k)fluoranthene	µg/Kg	-	-	-	380 U	28 J	-	380 U
Biphenyl	µg/Kg	-	-	-	380 U	380 U	-	380 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	*BH-4*	*BH-4*	*BH-5*	*BH-5*	*BH-5*	*BH-6*	*BH-6*
	Sample ID:	*S-37191-050306-PK-038*	*S-37191-050306-PK-039*	*S-37191-050206-PK-020*	*S-37191-050206-PK-021*	*S-37191-050206-PK-022*	*S-37191-050206-PK-011*	*S-37191-050206-PK-012*
	Sample Date:	*5/3/2006*	*5/3/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
	Sample Depth:	*0.3 - 1.2 ft*	*2.3 - 3 ft*	*0.5 - 1.2 ft*	*1.6 - 2.5 ft*	*5.5 - 6.5 ft*	*0 - 0.5 ft*	*1.5 - 2 ft*
Parameters	*Units*							
Semi-Volatiles (Cont'd.)								
bis(2-Chloroethoxy)methane	µg/Kg	-	-	-	380 U	380 U	-	380 U
bis(2-Chloroethyl)ether	µg/Kg	-	-	-	380 U	380 U	-	380 U
bis(2-Ethylhexyl)phthalate	µg/Kg	-	-	-	1000	900	-	380 U
Butyl benzylphthalate	µg/Kg	-	-	-	380 U	380 U	-	20 J
Caprolactam	µg/Kg	-	-	-	380 U	380 U	-	380 U
Carbazole	µg/Kg	-	-	-	380 U	380 U	-	380 U
Chrysene	µg/Kg	-	-	-	380 U	380 U	-	380 U
Dibenz(a,h)anthracene	µg/Kg	-	-	-	380 U	380 U	-	380 U
Dibenzofuran	µg/Kg	-	-	-	26 J	16 J	-	380 U
Diethyl phthalate	µg/Kg	-	-	-	380 U	380 U	-	380 U
Dimethyl phthalate	µg/Kg	-	-	-	380 U	380 U	-	380 U
Di-n-butylphthalate	µg/Kg	-	-	-	460	380 U	-	380 U
Di-n-octyl phthalate	µg/Kg	-	-	-	380 U	380 U	-	380 U
Fluoranthene	µg/Kg	-	-	-	240 J	170 J	-	380 U
Fluorene	µg/Kg	-	-	-	380 U	20 J	-	380 U
Hexachlorobenzene	µg/Kg	-	-	-	380 U	110 J	-	380 U
Hexachlorobutadiene	µg/Kg	-	-	-	90 J	67 J	-	380 U
Hexachlorocyclopentadiene	µg/Kg	-	-	-	1800 U	1800 U	-	1800 U
Hexachloroethane	µg/Kg	-	-	-	380 U	380 U	-	380 U
Indeno(1,2,3-cd)pyrene	µg/Kg	-	-	-	91 J	30 J	-	380 U
Isophorone	µg/Kg	-	-	-	380 U	380 U	-	380 U
Naphthalene	µg/Kg	-	-	-	180 J	190 J	-	380 U
Nitrobenzene	µg/Kg	-	-	-	380 U	380 U	-	380 U
N-Nitrosodi-n-propylamine	µg/Kg	-	-	-	380 U	380 U	-	380 U
N-Nitrosodiphenylamine	µg/Kg	-	-	-	380 U	380 U	-	380 U
Pentachlorophenol	µg/Kg	-	-	-	1800 U	1800 U	-	1800 U
Phenanthrene	µg/Kg	-	-	-	230 J	220 J	-	380 U
Phenol	µg/Kg	-	-	-	16 J	380 U	-	380 U
Pyrene	µg/Kg	-	-	-	130 J	79 J	-	380 U
Metals								
Lead	mg/kg	46.2	33.9	1470	16.7	-	23.7	-

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	*BH-4*	*BH-4*	*BH-5*	*BH-5*	*BH-5*	*BH-6*	*BH-6*
	Sample ID:	*S-37191-050306-PK-038*	*S-37191-050306-PK-039*	*S-37191-050206-PK-020*	*S-37191-050206-PK-021*	*S-37191-050206-PK-022*	*S-37191-050206-PK-011*	*S-37191-050206-PK-012*
	Sample Date:	*5/3/2006*	*5/3/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
	Sample Depth:	*0.3 - 1.2 ft*	*2.3 - 3 ft*	*0.5 - 1.2 ft*	*1.6 - 2.5 ft*	*5.5 - 6.5 ft*	*0 - 0.5 ft*	*1.5 - 2 ft*
Parameters	*Units*							
General Chemistry								
Total Solids	%	87.8	83.6	86.2	86.0	87.7	92.0	88.8

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

Sample Location:	*BH-7*	*BH-7*	*BH-8*	*BH-8*	*BH-8*	*BH-9*	*BH-9*
Sample ID:	*S-37191-050206-PK-013*	*S-37191-050206-PK-014*	*S-37191-050206-PK-015*	*S-37191-050206-PK-016*	*S-37191-050206-PK-017*	*S-37191-050206-PK-018*	*S-37191-050206-PK-019*
Sample Date:	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
Sample Depth:	*0.5 - 1 ft*	*1.4 - 1.8 ft*	*0.5 - 1 ft*	*1.4 - 2.1 ft*	*2.9 - 3.3 ft*	*0.5 - 1 ft*	*2 - 2.5 ft*
Parameters	*Units*						
Volatile Organic Compounds							
1,1,1-Trichloroethane	µg/Kg	-	-		6.3 U	6.1 U	-	-
1,1,2,2-Tetrachloroethane	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
1,1,2-Trichloroethane	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
1,1-Dichloroethane	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
1,1-Dichloroethene	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
1,2,4-Trichlorobenzene	µg/Kg	-	-	-	6.3 UJ	6.1 UJ	-	-
1,2-Dibromo-3-chloropropane (DBCP)	µg/Kg	-	-	-	R	R	-	-
1,2-Dibromoethane (Ethylene Dibromide)	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
1,2-Dichlorobenzene	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
1,2-Dichloroethane	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
1,2-Dichloropropane	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
1,3-Dichlorobenzene	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
1,4-Dichlorobenzene	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
2-Butanone (Methyl Ethyl Ketone)	µg/Kg	-	-	-	R	R	-	-
2-Hexanone	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/Kg	-	-	-	6.3 UJ	6.1 UJ	-	-
Acetone	µg/Kg	-	-	-	R	R	-	-
Benzene	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Bromodichloromethane	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Bromoform	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Bromomethane (Methyl Bromide)	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Carbon disulfide	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Carbon tetrachloride	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Chlorobenzene	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Chloroethane	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Chloroform (Trichloromethane)	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Chloromethane (Methyl Chloride)	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
cis-1,2-Dichloroethene	µg/Kg	-	-	-	2.3 J	4.3 J	-	-
cis-1,3-Dichloropropene	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Cyclohexane	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Dibromochloromethane	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Dichlorodifluoromethane (CFC-12)	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Ethylbenzene	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Isopropylbenzene	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Methyl acetate	µg/Kg	-	-	-	R	R	-	-
Methyl cyclohexane	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Methyl Tert Butyl Ether	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Methylene chloride	µg/Kg	-	-	-	2.2 J	6.1 U	-	-
Styrene	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Tetrachloroethene	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Toluene	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
trans-1,2-Dichloroethene	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
trans-1,3-Dichloropropene	µg/Kg	-	-	-	6.3 U	6.1 U	-	-

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	BH-7	BH-7	BH-8	BH-8	BH-8	BH-9	BH-9
	Sample ID:	S-37191-050206-PK-013	S-37191-050206-PK-014	S-37191-050206-PK-015	S-37191-050206-PK-016	S-37191-050206-PK-017	S-37191-050206-PK-018	S-37191-050206-PK-019
	Sample Date:	5/2/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006
	Sample Depth:	0.5 - 1 ft	1.4 - 1.8 ft	0.5 - 1 ft	1.4 - 2.1 ft	2.9 - 3.3 ft	0.5 - 1 ft	2 - 2.5 ft
Parameters	*Units*							
Volatiles (Cont'd.)								
Trichloroethene	µg/Kg	-	-	-	28	15	-	-
Trichlorofluoromethane (CFC-11)	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Trifluorotrichloroethane (Freon 113)	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Vinyl chloride	µg/Kg	-	-	-	6.3 U	6.1 U	-	-
Xylene (total)	µg/Kg	-	-	-	19 U	18 U	-	-
Semi-Volatile Organic Compounds								
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	µg/Kg	-	-	-	400 U	410 U	-	-
2,4,5-Trichlorophenol	µg/Kg	-	-	-	400 U	410 U	-	-
2,4,6-Trichlorophenol	µg/Kg	-	-	-	400 U	410 U	-	-
2,4-Dichlorophenol	µg/Kg	-	-	-	400 U	410 U	-	-
2,4-Dimethylphenol	µg/Kg	-	-	-	400 U	410 U	-	-
2,4-Dinitrophenol	µg/Kg	-	-	-	2000 U	2000 U	-	-
2,4-Dinitrotoluene	µg/Kg	-	-	-	400 U	410 U	-	-
2,6-Dinitrotoluene	µg/Kg	-	-	-	400 U	410 U	-	-
2-Chloronaphthalene	µg/Kg	-	-	-	400 U	410 U	-	-
2-Chlorophenol	µg/Kg	-	-	-	400 U	410 U	-	-
2-Methylnaphthalene	µg/Kg	-	-	-	400 U	410 U	-	-
2-Methylphenol	µg/Kg	-	-	-	400 U	410 U	-	-
2-Nitroaniline	µg/Kg	-	-	-	2000 U	2000 U	-	-
2-Nitrophenol	µg/Kg	-	-	-	400 U	410 U	-	-
3,3'-Dichlorobenzidine	µg/Kg	-	-	-	2000 U	2000 U	-	-
3-Nitroaniline	µg/Kg	-	-	-	2000 U	2000 U	-	-
4,6-Dinitro-2-methylphenol	µg/Kg	-	-	-	2000 U	2000 U	-	-
4-Bromophenyl phenyl ether	µg/Kg	-	-	-	400 U	410 U	-	-
4-Chloro-3-methylphenol	µg/Kg	-	-	-	400 U	410 U	-	-
4-Chloroaniline	µg/Kg	-	-	-	400 U	410 U	-	-
4-Chlorophenyl phenyl ether	µg/Kg	-	-	-	400 U	410 U	-	-
4-Methylphenol	µg/Kg	-	-	-	400 U	410 U	-	-
4-Nitroaniline	µg/Kg	-	-	-	2000 U	2000 U	-	-
4-Nitrophenol	µg/Kg	-	-	-	2000 U	2000 U	-	-
Acenaphthene	µg/Kg	-	-	-	400 U	410 U	-	-
Acenaphthylene	µg/Kg	-	-	-	400 U	410 U	-	-
Acetophenone	µg/Kg	-	-	-	400 U	410 U	-	-
Anthracene	µg/Kg	-	-	-	400 U	410 U	-	-
Atrazine	µg/Kg	-	-	-	400 U	410 U	-	-
Benzaldehyde	µg/Kg	-	-	-	400 U	410 U	-	-
Benzo(a)anthracene	µg/Kg	-	-	-	400 U	410 U	-	-
Benzo(a)pyrene	µg/Kg	-	-	-	15 J	410 U	-	-
Benzo(b)fluoranthene	µg/Kg	-	-	-	26 J	410 U	-	-
Benzo(g,h,i)perylene	µg/Kg	-	-	-	19 J	410 U	-	-
Benzo(k)fluoranthene	µg/Kg	-	-	-	9.2 J	410 U	-	-
Biphenyl	µg/Kg	-	-	-	400 U	410 U	-	-

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	*BH-7*	*BH-7*	*BH-8*	*BH-8*	*BH-8*	*BH-9*	*BH-9*
	Sample ID:	*S-37191-050206-PK-013*	*S-37191-050206-PK-014*	*S-37191-050206-PK-015*	*S-37191-050206-PK-016*	*S-37191-050206-PK-017*	*S-37191-050206-PK-018*	*S-37191-050206-PK-019*
	Sample Date:	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
	Sample Depth:	*0.5 - 1 ft*	*1.4 - 1.8 ft*	*0.5 - 1 ft*	*1.4 - 2.1 ft*	*2.9 - 3.3 ft*	*0.5 - 1 ft*	*2 - 2.5 ft*
Parameters	*Units*							
Semi-Volatiles (Cont'd.)								
bis(2-Chloroethoxy)methane	µg/Kg	-	-	-	400 U	410 U	-	-
bis(2-Chloroethyl)ether	µg/Kg	-	-	-	400 U	410 U	-	-
bis(2-Ethylhexyl)phthalate	µg/Kg	-	-	-	400 U	410 U	-	-
Butyl benzylphthalate	µg/Kg	-	-	-	21 J	24 J	-	-
Caprolactam	µg/Kg	-	-	-	400 U	410 U	-	-
Carbazole	µg/Kg	-	-	-	400 U	410 U	-	-
Chrysene	µg/Kg	-	-	-	400 U	410 U	-	-
Dibenz(a,h)anthracene	µg/Kg	-	-	-	400 U	410 U	-	-
Dibenzofuran	µg/Kg	-	-	-	400 U	410 U	-	-
Diethyl phthalate	µg/Kg	-	-	-	400 U	410 U	-	-
Dimethyl phthalate	µg/Kg	-	-	-	400 U	410 U	-	-
Di-n-butylphthalate	µg/Kg	-	-	-	400 U	410 U	-	-
Di-n-octyl phthalate	µg/Kg	-	-	-	400 U	410 U	-	-
Fluoranthene	µg/Kg	-	-	-	13 J	410 U	-	-
Fluorene	µg/Kg	-	-	-	400 U	410 U	-	-
Hexachlorobenzene	µg/Kg	-	-	-	400 U	410 U	-	-
Hexachlorobutadiene	µg/Kg	-	-	-	400 U	410 U	-	-
Hexachlorocyclopentadiene	µg/Kg	-	-	-	2000 U	2000 U	-	-
Hexachloroethane	µg/Kg	-	-	-	400 U	410 U	-	-
Indeno(1,2,3-cd)pyrene	µg/Kg	-	-	-	20 J	410 U	-	-
Isophorone	µg/Kg	-	-	-	400 U	410 U	-	-
Naphthalene	µg/Kg	-	-	-	400 U	410 U	-	-
Nitrobenzene	µg/Kg	-	-	-	400 U	410 U	-	-
N-Nitrosodi-n-propylamine	µg/Kg	-	-	-	400 U	410 U	-	-
N-Nitrosodiphenylamine	µg/Kg	-	-	-	400 U	410 U	-	-
Pentachlorophenol	µg/Kg	-	-	-	2000 U	2000 U	-	-
Phenanthrene	µg/Kg	-	-	-	11 J	410 U	-	-
Phenol	µg/Kg	-	-	-	400 U	410 U	-	-
Pyrene	µg/Kg	-	-	-	13 J	410 U	-	-
Metals								
Lead	mg/kg	1.3	4980	0.47	11.1	-	9250	241

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	*BH-7*	*BH-7*	*BH-8*	*BH-8*	*BH-8*	*BH-9*	*BH-9*
	Sample ID:	*S-37191-050206-PK-013*	*S-37191-050206-PK-014*	*S-37191-050206-PK-015*	*S-37191-050206-PK-016*	*S-37191-050206-PK-017*	*S-37191-050206-PK-018*	*S-37191-050206-PK-019*
	Sample Date:	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
	Sample Depth:	*0.5 - 1 ft*	*1.4 - 1.8 ft*	*0.5 - 1 ft*	*1.4 - 2.1 ft*	*2.9 - 3.3 ft*	*0.5 - 1 ft*	*2 - 2.5 ft*
Parameters	*Units*							
General Chemistry								
Total Solids	%	84.6	80.3	85.6	79.3	82.5	79.3	81.8

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	BH-10	BH-10	BH-11	BH-11	BH-12	BH-12	BH-12
	Sample ID:	S-37191-050206-PK-025	S-37191-050206-PK-026	S-37191-050106-JRR-003	S-37191-050106-JRR-004	S-37191-050306-PK-032	S-37191-050306-PK-033	S-37191-050306-PK-034
	Sample Date:	5/2/2006	5/2/2006	5/1/2006	5/1/2006	5/3/2006	5/3/2006	5/3/2006
	Sample Depth:	0.5 - 1 ft	1.3 - 1.8 ft	0 - 0.5 ft	0.5 - 3 ft	0.3 - 1 ft	1.2 - 2.5 ft	4 - 5 ft
Parameters	*Units*							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
1,1,2,2-Tetrachloroethane	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
1,1,2-Trichloroethane	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
1,1-Dichloroethane	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
1,1-Dichloroethene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
1,2,4-Trichlorobenzene	µg/Kg	-	-	-	-	-	6.1 U	6.1 UJ
1,2-Dibromo-3-chloropropane (DBCP)	µg/Kg	-	-	-	-	-	R	R
1,2-Dibromoethane (Ethylene Dibromide)	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
1,2-Dichlorobenzene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
1,2-Dichloroethane	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
1,2-Dichloropropane	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
1,3-Dichlorobenzene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
1,4-Dichlorobenzene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
2-Butanone (Methyl Ethyl Ketone)	µg/Kg	-	-	-	-	-	R	R
2-Hexanone	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/Kg	-	-	-	-	-	6.1 U	6.1 UJ
Acetone	µg/Kg	-	-	-	-	-	R	R
Benzene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Bromodichloromethane	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Bromoform	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Bromomethane (Methyl Bromide)	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Carbon disulfide	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Carbon tetrachloride	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Chlorobenzene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Chloroethane	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Chloroform (Trichloromethane)	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Chloromethane (Methyl Chloride)	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
cis-1,2-Dichloroethene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
cis-1,3-Dichloropropene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Cyclohexane	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Dibromochloromethane	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Dichlorodifluoromethane (CFC-12)	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Ethylbenzene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Isopropylbenzene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Methyl acetate	µg/Kg	-	-	-	-	-	R	R
Methyl cyclohexane	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Methyl Tert Butyl Ether	µg/Kg	-	-	-	-	-	6.1 UJ	6.1 U
Methylene chloride	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Styrene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Tetrachloroethene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Toluene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
trans-1,2-Dichloroethene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
trans-1,3-Dichloropropene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	BH-10	BH-10	BH-11	BH-11	BH-12	BH-12	BH-12
	Sample ID:	S-37191-050206-PK-025	S-37191-050206-PK-026	S-37191-050106-JRR-003	S-37191-050106-JRR-004	S-37191-050306-PK-032	S-37191-050306-PK-033	S-37191-050306-PK-034
	Sample Date:	5/2/2006	5/2/2006	5/1/2006	5/1/2006	5/3/2006	5/3/2006	5/3/2006
	Sample Depth:	0.5 - 1 ft	1.3 - 1.8 ft	0 - 0.5 ft	0.5 - 3 ft	0.3 - 1 ft	1.2 - 2.5 ft	4 - 5 ft
Parameters	*Units*							
Volatiles (Cont'd.)								
Trichloroethene	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Trichlorofluoromethane (CFC-11)	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Trifluorotrichloroethane (Freon 113)	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Vinyl chloride	µg/Kg	-	-	-	-	-	6.1 U	6.1 U
Xylene (total)	µg/Kg	-	-	-	-	-	18 U	18 U
Semi-Volatile Organic Compounds								
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	µg/Kg	-	-	-	-	-	770 U	410 U
2,4,5-Trichlorophenol	µg/Kg	-	-	-	-	-	770 U	410 U
2,4,6-Trichlorophenol	µg/Kg	-	-	-	-	-	770 U	410 U
2,4-Dichlorophenol	µg/Kg	-	-	-	-	-	770 U	410 U
2,4-Dimethylphenol	µg/Kg	-	-	-	-	-	770 U	410 U
2,4-Dinitrophenol	µg/Kg	-	-	-	-	-	3700 UJ	2000 UJ
2,4-Dinitrotoluene	µg/Kg	-	-	-	-	-	770 U	410 U
2,6-Dinitrotoluene	µg/Kg	-	-	-	-	-	770 U	410 U
2-Chloronaphthalene	µg/Kg	-	-	-	-	-	770 U	410 U
2-Chlorophenol	µg/Kg	-	-	-	-	-	770 U	410 U
2-Methylnaphthalene	µg/Kg	-	-	-	-	-	59 J	410 U
2-Methylphenol	µg/Kg	-	-	-	-	-	770 U	410 U
2-Nitroaniline	µg/Kg	-	-	-	-	-	3700 U	2000 U
2-Nitrophenol	µg/Kg	-	-	-	-	-	770 U	410 U
3,3'-Dichlorobenzidine	µg/Kg	-	-	-	-	-	3700 U	2000 U
3-Nitroaniline	µg/Kg	-	-	-	-	-	3700 U	2000 U
4,6-Dinitro-2-methylphenol	µg/Kg	-	-	-	-	-	3700 U	2000 U
4-Bromophenyl phenyl ether	µg/Kg	-	-	-	-	-	770 U	410 U
4-Chloro-3-methylphenol	µg/Kg	-	-	-	-	-	770 U	410 U
4-Chloroaniline	µg/Kg	-	-	-	-	-	770 U	410 U
4-Chlorophenyl phenyl ether	µg/Kg	-	-	-	-	-	770 U	410 U
4-Methylphenol	µg/Kg	-	-	-	-	-	770 U	410 U
4-Nitroaniline	µg/Kg	-	-	-	-	-	3700 U	2000 U
4-Nitrophenol	µg/Kg	-	-	-	-	-	3700 U	2000 U
Acenaphthene	µg/Kg	-	-	-	-	-	89 J	410 U
Acenaphthylene	µg/Kg	-	-	-	-	-	81 J	410 U
Acetophenone	µg/Kg	-	-	-	-	-	770 U	410 U
Anthracene	µg/Kg	-	-	-	-	-	220 J	410 U
Atrazine	µg/Kg	-	-	-	-	-	770 U	410 U
Benzaldehyde	µg/Kg	-	-	-	-	-	770 U	410 U
Benzo(a)anthracene	µg/Kg	-	-	-	-	-	700 J	10 J
Benzo(a)pyrene	µg/Kg	-	-	-	-	-	680 J	410 U
Benzo(b)fluoranthene	µg/Kg	-	-	-	-	-	850	11 J
Benzo(g,h,i)perylene	µg/Kg	-	-	-	-	-	520 J	410 U
Benzo(k)fluoranthene	µg/Kg	-	-	-	-	-	340 J	410 U
Biphenyl	µg/Kg	-	-	-	-	-	770 U	410 U

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	BH-10	BH-10	BH-11	BH-11	BH-12	BH-12	BH-12
	Sample ID:	S-37191-050206-PK-025	S-37191-050206-PK-026	S-37191-050106-JRR-003	S-37191-050106-JRR-004	S-37191-050306-PK-032	S-37191-050306-PK-033	S-37191-050306-PK-034
	Sample Date:	5/2/2006	5/2/2006	5/1/2006	5/1/2006	5/3/2006	5/3/2006	5/3/2006
	Sample Depth:	0.5 - 1 ft	1.3 - 1.8 ft	0 - 0.5 ft	0.5 - 3 ft	0.3 - 1 ft	1.2 - 2.5 ft	4 - 5 ft
Parameters	*Units*							
Semi-Volatiles (Cont'd.)								
bis(2-Chloroethoxy)methane	µg/Kg	-	-	-	-	-	770 U	410 U
bis(2-Chloroethyl)ether	µg/Kg	-	-	-	-	-	770 U	410 U
bis(2-Ethylhexyl)phthalate	µg/Kg	-	-	-	-	-	49 J	410 U
Butyl benzylphthalate	µg/Kg	-	-	-	-	-	52 J	21 J
Caprolactam	µg/Kg	-	-	-	-	-	770 UJ	410 UJ
Carbazole	µg/Kg	-	-	-	-	-	130 J	410 U
Chrysene	µg/Kg	-	-	-	-	-	780	9.2 J
Dibenz(a,h)anthracene	µg/Kg	-	-	-	-	-	130 J	410 U
Dibenzofuran	µg/Kg	-	-	-	-	-	57 J	410 U
Diethyl phthalate	µg/Kg	-	-	-	-	-	770 U	410 U
Dimethyl phthalate	µg/Kg	-	-	-	-	-	770 U	410 U
Di-n-butylphthalate	µg/Kg	-	-	-	-	-	770 U	410 U
Di-n-octyl phthalate	µg/Kg	-	-	-	-	-	770 U	410 U
Fluoranthene	µg/Kg	-	-	-	-	-	1500	17 J
Fluorene	µg/Kg	-	-	-	-	-	87 J	410 U
Hexachlorobenzene	µg/Kg	-	-	-	-	-	770 U	410 U
Hexachlorobutadiene	µg/Kg	-	-	-	-	-	770 U	410 U
Hexachlorocyclopentadiene	µg/Kg	-	-	-	-	-	3700 U	2000 U
Hexachloroethane	µg/Kg	-	-	-	-	-	770 U	410 U
Indeno(1,2,3-cd)pyrene	µg/Kg	-	-	-	-	-	560 J	410 U
Isophorone	µg/Kg	-	-	-	-	-	770 U	410 U
Naphthalene	µg/Kg	-	-	-	-	-	68 J	410 U
Nitrobenzene	µg/Kg	-	-	-	-	-	770 U	410 U
N-Nitrosodi-n-propylamine	µg/Kg	-	-	-	-	-	770 U	410 U
N-Nitrosodiphenylamine	µg/Kg	-	-	-	-	-	770 U	410 U
Pentachlorophenol	µg/Kg	-	-	-	-	-	3700 U	2000 U
Phenanthrene	µg/Kg	-	-	-	-	-	870	15 J
Phenol	µg/Kg	-	-	-	-	-	770 U	410 U
Pyrene	µg/Kg	-	-	-	-	-	1100	12 J
Metals								
Lead	mg/kg	4.1 J	12.4 J	354	106	96.8	54.9	-

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	*BH-10*	*BH-10*	*BH-11*	*BH-11*	*BH-12*	*BH-12*	*BH-12*
	Sample ID:	*S-37191-050206-PK-025*	*S-37191-050206-PK-026*	*S-37191-050106-JRR-003*	*S-37191-050106-JRR-004*	*S-37191-050306-PK-032*	*S-37191-050306-PK-033*	*S-37191-050306-PK-034*
	Sample Date:	*5/2/2006*	*5/2/2006*	*5/1/2006*	*5/1/2006*	*5/3/2006*	*5/3/2006*	*5/3/2006*
	Sample Depth:	*0.5 - 1 ft*	*1.3 - 1.8 ft*	*0 - 0.5 ft*	*0.5 - 3 ft*	*0.3 - 1 ft*	*1.2 - 2.5 ft*	*4 - 5 ft*
Parameters	*Units*							
General Chemistry								
Total Solids	%	83.1	83.1	81.0	79.6	94.1	82.0	81.7

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	BH-13	BH-13	BH-13	BH-14	BH-14	BH-15	BH-15
	Sample ID:	S-37191-050306-PK-035	S-37191-050306-PK-036	S-37191-050306-PK-037	S-37191-050206-PK-030	S-37191-050206-PK-031	S-37191-050206-PK-007	S-37191-050206-PK-008
	Sample Date:	5/3/2006	5/3/2006	5/3/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006
	Sample Depth:	0.5 - 1.1 ft	1.5 - 2.5 ft	4 - 5 ft	0.5 - 1.5 ft	2.5 - 3 ft	1.5 - 2 ft	3 - 3.5 ft
Parameters	*Units*							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
1,1,2-Trichloroethane	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
1,1-Dichloroethane	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
1,1-Dichloroethene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
1,2,4-Trichlorobenzene	µg/Kg	-	6.6 UJ	6.4 UJ	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	µg/Kg	-	R	R	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
1,2-Dichlorobenzene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
1,2-Dichloroethane	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
1,2-Dichloropropane	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
1,3-Dichlorobenzene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
1,4-Dichlorobenzene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	µg/Kg	-	R	R	-	-	-	-
2-Hexanone	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/Kg	-	6.6 UJ	6.4 UJ	-	-	-	-
Acetone	µg/Kg	-	R	R	-	-	-	-
Benzene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Bromodichloromethane	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Bromoform	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Bromomethane (Methyl Bromide)	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Carbon disulfide	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Carbon tetrachloride	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Chlorobenzene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Chloroethane	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Chloroform (Trichloromethane)	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Chloromethane (Methyl Chloride)	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
cis-1,2-Dichloroethene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
cis-1,3-Dichloropropene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Cyclohexane	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Dibromochloromethane	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Dichlorodifluoromethane (CFC-12)	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Ethylbenzene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Isopropylbenzene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Methyl acetate	µg/Kg	-	R	R	-	-	-	-
Methyl cyclohexane	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Methyl Tert Butyl Ether	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Methylene chloride	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Styrene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Tetrachloroethene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Toluene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
trans-1,2-Dichloroethene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
trans-1,3-Dichloropropene	µg/Kg	-	6.6 U	6.4 U	-	-	-	-

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	BH-13	BH-13	BH-13	BH-14	BH-14	BH-15	BH-15
	Sample ID:	S-37191-050306-PK-035	S-37191-050306-PK-036	S-37191-050306-PK-037	S-37191-050206-PK-030	S-37191-050206-PK-031	S-37191-050206-PK-007	S-37191-050206-PK-008
	Sample Date:	5/3/2006	5/3/2006	5/3/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006
	Sample Depth:	0.5 - 1.1 ft	1.5 - 2.5 ft	4 - 5 ft	0.5 - 1.5 ft	2.5 - 3 ft	1.5 - 2 ft	3 - 3.5 ft
Parameters	*Units*							
Volatiles (Cont'd.)								
Trichloroethene	µg/Kg	-	1.4 J	6.4 U	-	-	-	-
Trichlorofluoromethane (CFC-11)	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Trifluorotrichloroethane (Freon 113)	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Vinyl chloride	µg/Kg	-	6.6 U	6.4 U	-	-	-	-
Xylene (total)	µg/Kg	-	20 U	19 U	-	-	-	-
Semi-Volatile Organic Compounds								
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	µg/Kg	-	810 U	410 U	-	-	-	-
2,4,5-Trichlorophenol	µg/Kg	-	810 U	410 U	-	-	-	-
2,4,6-Trichlorophenol	µg/Kg	-	810 U	410 U	-	-	-	-
2,4-Dichlorophenol	µg/Kg	-	810 U	410 U	-	-	-	-
2,4-Dimethylphenol	µg/Kg	-	810 U	410 U	-	-	-	-
2,4-Dinitrophenol	µg/Kg	-	3900 UJ	2000 UJ	-	-	-	-
2,4-Dinitrotoluene	µg/Kg	-	810 U	410 U	-	-	-	-
2,6-Dinitrotoluene	µg/Kg	-	810 U	410 U	-	-	-	-
2-Chloronaphthalene	µg/Kg	-	810 U	410 U	-	-	-	-
2-Chlorophenol	µg/Kg	-	810 U	410 U	-	-	-	-
2-Methylnaphthalene	µg/Kg	-	65 J	410 U	-	-	-	-
2-Methylphenol	µg/Kg	-	810 U	410 U	-	-	-	-
2-Nitroaniline	µg/Kg	-	3900 U	2000 U	-	-	-	-
2-Nitrophenol	µg/Kg	-	810 U	410 U	-	-	-	-
3,3'-Dichlorobenzidine	µg/Kg	-	3900 U	2000 U	-	-	-	-
3-Nitroaniline	µg/Kg	-	3900 U	2000 U	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/Kg	-	3900 U	2000 U	-	-	-	-
4-Bromophenyl phenyl ether	µg/Kg	-	810 U	410 U	-	-	-	-
4-Chloro-3-methylphenol	µg/Kg	-	810 U	410 U	-	-	-	-
4-Chloroaniline	µg/Kg	-	810 U	410 U	-	-	-	-
4-Chlorophenyl phenyl ether	µg/Kg	-	810 U	410 U	-	-	-	-
4-Methylphenol	µg/Kg	-	810 U	410 U	-	-	-	-
4-Nitroaniline	µg/Kg	-	3900 U	2000 U	-	-	-	-
4-Nitrophenol	µg/Kg	-	3900 U	2000 U	-	-	-	-
Acenaphthene	µg/Kg	-	22 J	410 U	-	-	-	-
Acenaphthylene	µg/Kg	-	810 U	410 U	-	-	-	-
Acetophenone	µg/Kg	-	810 U	410 U	-	-	-	-
Anthracene	µg/Kg	-	52 J	410 U	-	-	-	-
Atrazine	µg/Kg	-	810 U	410 U	-	-	-	-
Benzaldehyde	µg/Kg	-	810 U	410 U	-	-	-	-
Benzo(a)anthracene	µg/Kg	-	1300	13 J	-	-	-	-
Benzo(a)pyrene	µg/Kg	-	1300	12 J	-	-	-	-
Benzo(b)fluoranthene	µg/Kg	-	2700	24 J	-	-	-	-
Benzo(g,h,i)perylene	µg/Kg	-	1300	13 J	-	-	-	-
Benzo(k)fluoranthene	µg/Kg	-	970	9.7 J	-	-	-	-
Biphenyl	µg/Kg	-	810 U	410 U	-	-	-	-

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	*BH-13*	*BH-13*	*BH-13*	*BH-14*	*BH-14*	*BH-15*	*BH-15*
	Sample ID:	*S-37191-050306-PK-035*	*S-37191-050306-PK-036*	*S-37191-050306-PK-037*	*S-37191-050206-PK-030*	*S-37191-050206-PK-031*	*S-37191-050206-PK-007*	*S-37191-050206-PK-008*
	Sample Date:	*5/3/2006*	*5/3/2006*	*5/3/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
	Sample Depth:	*0.5 - 1.1 ft*	*1.5 - 2.5 ft*	*4 - 5 ft*	*0.5 - 1.5 ft*	*2.5 - 3 ft*	*1.5 - 2 ft*	*3 - 3.5 ft*
Parameters	*Units*							
Semi-Volatiles (Cont'd.)								
bis(2-Chloroethoxy)methane	µg/Kg	-	810 U	410 U	-	-	-	-
bis(2-Chloroethyl)ether	µg/Kg	-	810 U	410 U	-	-	-	-
bis(2-Ethylhexyl)phthalate	µg/Kg	-	810 U	410 U	-	-	-	-
Butyl benzylphthalate	µg/Kg	-	810 U	26 J	-	-	-	-
Caprolactam	µg/Kg	-	810 UJ	410 UJ	-	-	-	-
Carbazole	µg/Kg	-	64 J	410 U	-	-	-	-
Chrysene	µg/Kg	-	2100	16 J	-	-	-	-
Dibenz(a,h)anthracene	µg/Kg	-	500 J	410 U	-	-	-	-
Dibenzofuran	µg/Kg	-	35 J	410 U	-	-	-	-
Diethyl phthalate	µg/Kg	-	810 U	410 U	-	-	-	-
Dimethyl phthalate	µg/Kg	-	810 U	410 U	-	-	-	-
Di-n-butylphthalate	µg/Kg	-	810 U	410 U	-	-	-	-
Di-n-octyl phthalate	µg/Kg	-	810 U	410 U	-	-	-	-
Fluoranthene	µg/Kg	-	1400	13 J	-	-	-	-
Fluorene	µg/Kg	-	810 U	410 U	-	-	-	-
Hexachlorobenzene	µg/Kg	-	810 U	410 U	-	-	-	-
Hexachlorobutadiene	µg/Kg	-	810 U	410 U	-	-	-	-
Hexachlorocyclopentadiene	µg/Kg	-	3900 U	2000 U	-	-	-	-
Hexachloroethane	µg/Kg	-	810 U	410 U	-	-	-	-
Indeno(1,2,3-cd)pyrene	µg/Kg	-	1400	14 J	-	-	-	-
Isophorone	µg/Kg	-	810 U	410 U	-	-	-	-
Naphthalene	µg/Kg	-	64 J	410 U	-	-	-	-
Nitrobenzene	µg/Kg	-	810 U	410 U	-	-	-	-
N-Nitrosodi-n-propylamine	µg/Kg	-	810 U	410 U	-	-	-	-
N-Nitrosodiphenylamine	µg/Kg	-	810 U	410 U	-	-	-	-
Pentachlorophenol	µg/Kg	-	3900 U	2000 U	-	-	-	-
Phenanthrene	µg/Kg	-	350 J	410 U	-	-	-	-
Phenol	µg/Kg	-	18 J	410 U	-	-	-	-
Pyrene	µg/Kg	-	1100	410 U	-	-	-	-
Metals								
Lead	mg/kg	2.8	53.2	-	86.5 J	45.9 J	804	9.8

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	*BH-13*	*BH-13*	*BH-13*	*BH-14*	*BH-14*	*BH-15*	*BH-15*
	Sample ID:	*S-37191-050306-PK-035*	*S-37191-050306-PK-036*	*S-37191-050306-PK-037*	*S-37191-050206-PK-030*	*S-37191-050206-PK-031*	*S-37191-050206-PK-007*	*S-37191-050206-PK-008*
	Sample Date:	*5/3/2006*	*5/3/2006*	*5/3/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
	Sample Depth:	*0.5 - 1.1 ft*	*1.5 - 2.5 ft*	*4 - 5 ft*	*0.5 - 1.5 ft*	*2.5 - 3 ft*	*1.5 - 2 ft*	*3 - 3.5 ft*
Parameters	*Units*							
General Chemistry								
Total Solids	%	77.8	75.7	77.7	84.4	75.4	79.3	89.3

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	BH-16	BH-16	BH-17	BH-17
	Sample ID:	S-37191-050206-PK-009	S-37191-050206-PK-010	S-37191-050206-PK-005	S-37191-050206-PK-006
	Sample Date:	5/2/2006	5/2/2006	5/2/2006	5/2/2006
	Sample Depth:	0.75 - 1.2 ft	2.5 - 3.2 ft	0 - 0.5 ft	1 - 1.5 ft
Parameters	*Units*				
Volatile Organic Compounds					
1,1,1-Trichloroethane	µg/Kg	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/Kg	-	-	-	-
1,1,2-Trichloroethane	µg/Kg	-	-	-	-
1,1-Dichloroethane	µg/Kg	-	-	-	-
1,1-Dichloroethene	µg/Kg	-	-	-	-
1,2,4-Trichlorobenzene	µg/Kg	-	-	-	-
1,2-Dibromo-3-chloropropane (DBCP)	µg/Kg	-	-	-	-
1,2-Dibromoethane (Ethylene Dibromide)	µg/Kg	-	-	-	-
1,2-Dichlorobenzene	µg/Kg	-	-	-	-
1,2-Dichloroethane	µg/Kg	-	-	-	-
1,2-Dichloropropane	µg/Kg	-	-	-	-
1,3-Dichlorobenzene	µg/Kg	-	-	-	-
1,4-Dichlorobenzene	µg/Kg	-	-	-	-
2-Butanone (Methyl Ethyl Ketone)	µg/Kg	-	-	-	-
2-Hexanone	µg/Kg	-	-	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/Kg	-	-	-	-
Acetone	µg/Kg	-	-	-	-
Benzene	µg/Kg	-	-	-	-
Bromodichloromethane	µg/Kg	-	-	-	-
Bromoform	µg/Kg	-	-	-	-
Bromomethane (Methyl Bromide)	µg/Kg	-	-	-	-
Carbon disulfide	µg/Kg	-	-	-	-
Carbon tetrachloride	µg/Kg	-	-	-	-
Chlorobenzene	µg/Kg	-	-	-	-
Chloroethane	µg/Kg	-	-	-	-
Chloroform (Trichloromethane)	µg/Kg	-	-	-	-
Chloromethane (Methyl Chloride)	µg/Kg	-	-	-	-
cis-1,2-Dichloroethene	µg/Kg	-	-	-	-
cis-1,3-Dichloropropene	µg/Kg	-	-	-	-
Cyclohexane	µg/Kg	-	-	-	-
Dibromochloromethane	µg/Kg	-	-	-	-
Dichlorodifluoromethane (CFC-12)	µg/Kg	-	-	-	-
Ethylbenzene	µg/Kg	-	-	-	-
Isopropylbenzene	µg/Kg	-	-	-	-
Methyl acetate	µg/Kg	-	-	-	-
Methyl cyclohexane	µg/Kg	-	-	-	-
Methyl Tert Butyl Ether	µg/Kg	-	-	-	-
Methylene chloride	µg/Kg	-	-	-	-
Styrene	µg/Kg	-	-	-	-
Tetrachloroethene	µg/Kg	-	-	-	-
Toluene	µg/Kg	-	-	-	-
trans-1,2-Dichloroethene	µg/Kg	-	-	-	-
trans-1,3-Dichloropropene	µg/Kg	-	-	-	-

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	BH-16	BH-16	BH-17	BH-17
	Sample ID:	S-37191-050206-PK-009	S-37191-050206-PK-010	S-37191-050206-PK-005	S-37191-050206-PK-006
	Sample Date:	5/2/2006	5/2/2006	5/2/2006	5/2/2006
	Sample Depth:	0.75 - 1.2 ft	2.5 - 3.2 ft	0 - 0.5 ft	1 - 1.5 ft
Parameters	*Units*				
Volatiles (Cont'd.)					
Trichloroethene	µg/Kg	-	-	-	-
Trichlorofluoromethane (CFC-11)	µg/Kg	-	-	-	-
Trifluorotrichloroethane (Freon 113)	µg/Kg	-	-	-	-
Vinyl chloride	µg/Kg	-	-	-	-
Xylene (total)	µg/Kg	-	-	-	-
Semi-Volatile Organic Compounds					
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	µg/Kg	-	-	-	-
2,4,5-Trichlorophenol	µg/Kg	-	-	-	-
2,4,6-Trichlorophenol	µg/Kg	-	-	-	-
2,4-Dichlorophenol	µg/Kg	-	-	-	-
2,4-Dimethylphenol	µg/Kg	-	-	-	-
2,4-Dinitrophenol	µg/Kg	-	-	-	-
2,4-Dinitrotoluene	µg/Kg	-	-	-	-
2,6-Dinitrotoluene	µg/Kg	-	-	-	-
2-Chloronaphthalene	µg/Kg	-	-	-	-
2-Chlorophenol	µg/Kg	-	-	-	-
2-Methylnaphthalene	µg/Kg	-	-	-	-
2-Methylphenol	µg/Kg	-	-	-	-
2-Nitroaniline	µg/Kg	-	-	-	-
2-Nitrophenol	µg/Kg	-	-	-	-
3,3'-Dichlorobenzidine	µg/Kg	-	-	-	-
3-Nitroaniline	µg/Kg	-	-	-	-
4,6-Dinitro-2-methylphenol	µg/Kg	-	-	-	-
4-Bromophenyl phenyl ether	µg/Kg	-	-	-	-
4-Chloro-3-methylphenol	µg/Kg	-	-	-	-
4-Chloroaniline	µg/Kg	-	-	-	-
4-Chlorophenyl phenyl ether	µg/Kg	-	-	-	-
4-Methylphenol	µg/Kg	-	-	-	-
4-Nitroaniline	µg/Kg	-	-	-	-
4-Nitrophenol	µg/Kg	-	-	-	-
Acenaphthene	µg/Kg	-	-	-	-
Acenaphthylene	µg/Kg	-	-	-	-
Acetophenone	µg/Kg	-	-	-	-
Anthracene	µg/Kg	-	-	-	-
Atrazine	µg/Kg	-	-	-	-
Benzaldehyde	µg/Kg	-	-	-	-
Benzo(a)anthracene	µg/Kg	-	-	-	-
Benzo(a)pyrene	µg/Kg	-	-	-	-
Benzo(b)fluoranthene	µg/Kg	-	-	-	-
Benzo(g,h,i)perylene	µg/Kg	-	-	-	-
Benzo(k)fluoranthene	µg/Kg	-	-	-	-
Biphenyl	µg/Kg	-	-	-	-

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	BH-16	BH-16	BH-17	BH-17
	Sample ID:	S-37191-050206-PK-009	S-37191-050206-PK-010	S-37191-050206-PK-005	S-37191-050206-PK-006
	Sample Date:	5/2/2006	5/2/2006	5/2/2006	5/2/2006
	Sample Depth:	0.75 - 1.2 ft	2.5 - 3.2 ft	0 - 0.5 ft	1 - 1.5 ft
Parameters	*Units*				
Semi-Volatiles (Cont'd.)					
bis(2-Chloroethoxy)methane	µg/Kg	-	-	-	-
bis(2-Chloroethyl)ether	µg/Kg	-	-	-	-
bis(2-Ethylhexyl)phthalate	µg/Kg	-	-	-	-
Butyl benzylphthalate	µg/Kg	-	-	-	-
Caprolactam	µg/Kg	-	-	-	-
Carbazole	µg/Kg	-	-	-	-
Chrysene	µg/Kg	-	-	-	-
Dibenz(a,h)anthracene	µg/Kg	-	-	-	-
Dibenzofuran	µg/Kg	-	-	-	-
Diethyl phthalate	µg/Kg	-	-	-	-
Dimethyl phthalate	µg/Kg	-	-	-	-
Di-n-butylphthalate	µg/Kg	-	-	-	-
Di-n-octyl phthalate	µg/Kg	-	-	-	-
Fluoranthene	µg/Kg	-	-	-	-
Fluorene	µg/Kg	-	-	-	-
Hexachlorobenzene	µg/Kg	-	-	-	-
Hexachlorobutadiene	µg/Kg	-	-	-	-
Hexachlorocyclopentadiene	µg/Kg	-	-	-	-
Hexachloroethane	µg/Kg	-	-	-	-
Indeno(1,2,3-cd)pyrene	µg/Kg	-	-	-	-
Isophorone	µg/Kg	-	-	-	-
Naphthalene	µg/Kg	-	-	-	-
Nitrobenzene	µg/Kg	-	-	-	-
N-Nitrosodi-n-propylamine	µg/Kg	-	-	-	-
N-Nitrosodiphenylamine	µg/Kg	-	-	-	-
Pentachlorophenol	µg/Kg	-	-	-	-
Phenanthrene	µg/Kg	-	-	-	-
Phenol	µg/Kg	-	-	-	-
Pyrene	µg/Kg	-	-	-	-
Metals					
Lead	mg/kg	422	19.4	282	270

TABLE 3B

ANALYTICAL RESULTS SUMMARY
SOIL SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

	Sample Location:	*BH-16*	*BH-16*	*BH-17*	*BH-17*
	Sample ID:	*S-37191-050206-PK-009*	*S-37191-050206-PK-010*	*S-37191-050206-PK-005*	*S-37191-050206-PK-006*
	Sample Date:	*5/2/2006*	*5/2/2006*	*5/2/2006*	*5/2/2006*
	Sample Depth:	*0.75 - 1.2 ft*	*2.5 - 3.2 ft*	*0 - 0.5 ft*	*1 - 1.5 ft*
Parameters	*Units*				
General Chemistry					
Total Solids	%	80.1	78.9	80.7	76.2

Notes:
- \- Not analyzed.
- J Estimated.
- R Rejected.
- U Non-detect at associated value.
- UJ The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity.

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INITIAL CALIBRATION RESULTS
SOIL AND GROUNDWATER SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

Parameter	*Compound*	*Calibration Date*	*RRF*	*%RSD*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
Volatiles	Methyl acetate	04/06/06	0.040	25.6	S-37191-050306-PK-033	6.1 U	µg/Kg	R
					S-37191-050306-PK-034	6.1 U	µg/Kg	R
					S-37191-050306-PK-036	6.6 U	µg/Kg	R
					S-37191-050306-PK-037	6.4 U	µg/Kg	R
					S-37191-050106-JRR-002	5.5 U	µg/Kg	R
					S-37191-050206-PK-012	5.6 U	µg/Kg	R
					S-37191-050206-PK-016	6.3 U	µg/Kg	R
					S-37191-050206-PK-017	6.1 U	µg/Kg	R
					S-37191-050206-PK-028	6.2 U	µg/Kg	R
					S-37191-050206-PK-029	6.1 U	µg/Kg	R
Volatiles	Acetone	04/06/06	0.045	12.7	S-37191-050306-PK-033	24 U	µg/Kg	R
					S-37191-050306-PK-034	24 U	µg/Kg	R
					S-37191-050306-PK-036	26 U	µg/Kg	R
					S-37191-050306-PK-037	26 U	µg/Kg	R
					S-37191-050106-JRR-002	22 U	µg/Kg	R
					S-37191-050206-PK-012	23 U	µg/Kg	R
					S-37191-050206-PK-016	25 U	µg/Kg	R
					S-37191-050206-PK-017	24 U	µg/Kg	R
					S-37191-050206-PK-028	25 U	µg/Kg	R
					S-37191-050206-PK-029	25 U	µg/Kg	R
Volatiles	2-Butanone (Methyl Ethyl Ketone)	04/06/06	0.047	48.4	S-37191-050306-PK-033	6.1 U	µg/Kg	R
					S-37191-050306-PK-034	6.1 U	µg/Kg	R
					S-37191-050306-PK-036	6.6 U	µg/Kg	R
					S-37191-050306-PK-037	6.4 U	µg/Kg	R
					S-37191-050106-JRR-002	5.5 U	µg/Kg	R
					S-37191-050206-PK-012	5.6 U	µg/Kg	R
					S-37191-050206-PK-016	6.3 U	µg/Kg	R
					S-37191-050206-PK-017	6.1 U	µg/Kg	R
					S-37191-050206-PK-028	6.2 U	µg/Kg	R
					S-37191-050206-PK-029	6.1 U	µg/Kg	R

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INITIAL CALIBRATION RESULTS
SOIL AND GROUNDWATER SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

Parameter	*Compound*	*Calibration Date*	*RRF*	*%RSD*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
Volatiles	1,2-Dibromo-3-chloropropane (DBCP)	04/06/06	0.032	24.1	S-37191-050306-PK-033	6.1 U	µg/Kg	R
					S-37191-050306-PK-034	6.1 U	µg/Kg	R
					S-37191-050306-PK-036	6.6 U	µg/Kg	R
					S-37191-050306-PK-037	6.4 U	µg/Kg	R
					S-37191-050106-JRR-002	5.5 U	µg/Kg	R
					S-37191-050206-PK-012	5.6 U	µg/Kg	R
					S-37191-050206-PK-016	6.3 U	µg/Kg	R
					S-37191-050206-PK-017	6.1 U	µg/Kg	R
					S-37191-050206-PK-028	6.2 U	µg/Kg	R
					S-37191-050206-PK-029	6.1 U	µg/Kg	R

Notes:
%RSD Percent Relative Standard Deviation.
R Rejected.
RRF Relative Response Factor.
U Non-detect at associated value.

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
SOIL AND GROUNDWATER SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

Parameter	*Calibration Date*	*Compound*	*RRF*	*%D*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
Volatiles	05/08/06	4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	0.385	34.7	S-37191-050306-PK-034	6.1 U	µg/Kg	UJ
					S-37191-050306-PK-036	6.6 U	µg/Kg	UJ
					S-37191-050306-PK-037	6.4 U	µg/Kg	UJ
					S-37191-050106-JRR-002	5.5 U	µg/Kg	UJ
					S-37191-050206-PK-012	5.6 U	µg/Kg	UJ
					S-37191-050206-PK-016	6.3 U	µg/Kg	UJ
					S-37191-050206-PK-017	6.1 U	µg/Kg	UJ
Volatiles	05/08/06	1,2-Dibromo-3-chloropropane (DBCP)	0.029	-7.5	S-37191-050306-PK-034	6.1 U	µg/Kg	R
					S-37191-050306-PK-036	6.6 U	µg/Kg	R
					S-37191-050306-PK-037	6.4 U	µg/Kg	R
					S-37191-050106-JRR-002	5.5 U	µg/Kg	R
					S-37191-050206-PK-012	5.6 U	µg/Kg	R
					S-37191-050206-PK-016	6.3 U	µg/Kg	R
					S-37191-050206-PK-017	6.1 U	µg/Kg	R
Volatiles	05/08/06	1,2,4-Trichlorobenzene	0.238	-35.6	S-37191-050306-PK-034	6.1 U	µg/Kg	UJ
					S-37191-050306-PK-036	6.6 U	µg/Kg	UJ
					S-37191-050306-PK-037	6.4 U	µg/Kg	UJ
					S-37191-050106-JRR-002	5.5 U	µg/Kg	UJ
					S-37191-050206-PK-012	5.6 U	µg/Kg	UJ
					S-37191-050206-PK-016	6.3 U	µg/Kg	UJ
					S-37191-050206-PK-017	6.1 U	µg/Kg	UJ
Volatiles	05/08/06	Methyl acetate	0.024	-40.0	S-37191-050306-PK-034	6.1 U	µg/Kg	R
					S-37191-050306-PK-036	6.6 U	µg/Kg	R
					S-37191-050306-PK-037	6.4 U	µg/Kg	R
					S-37191-050106-JRR-002	5.5 U	µg/Kg	R
					S-37191-050206-PK-012	5.6 U	µg/Kg	R
					S-37191-050206-PK-016	6.3 U	µg/Kg	R
					S-37191-050206-PK-017	6.1 U	µg/Kg	R
Volatiles	05/09/06	Acetone	0.036	-19.8	S-37191-050306-PK-033	24 U	µg/Kg	R
					S-37191-050206-PK-028	25 U	µg/Kg	R
					S-37191-050206-PK-029	25 U	µg/Kg	R

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
SOIL AND GROUNDWATER SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

Parameter	*Calibration Date*	*Compound*	*RRF*	*%D*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
Volatiles	05/09/06	Methyl Tert Butyl Ether	0.167	-32.3	S-37191-050306-PK-033	6.1 U	µg/Kg	UJ
					S-37191-050206-PK-028	6.2 U	µg/Kg	UJ
					S-37191-050206-PK-029	6.1 U	µg/Kg	UJ
Volatiles	05/09/06	2-Butanone (Methyl Ethyl Ketone)	0.044	-6.2	S-37191-050306-PK-033	6.1 U	µg/Kg	R
					S-37191-050206-PK-028	6.2 U	µg/Kg	R
					S-37191-050206-PK-029	6.1 U	µg/Kg	R
Volatiles	05/09/06	1,2-Dibromo-3-chloropropane (DBCP)	0.040	27.4	S-37191-050306-PK-033	6.1 U	µg/Kg	R
					S-37191-050206-PK-028	6.2 U	µg/Kg	R
					S-37191-050206-PK-029	6.1 U	µg/Kg	R
Volatiles	05/09/06	Methyl acetate	0.031	-22.5	S-37191-050306-PK-033	6.1 U	µg/Kg	R
					S-37191-050206-PK-028	6.2 U	µg/Kg	R
					S-37191-050206-PK-029	6.1 U	µg/Kg	R
Volatiles	05/10/06	Chloroethane	0.046	-19.9	S-37191-050206-PK-021	29000 U	µg/Kg	R
					S-37191-050206-PK-022	2900 U	µg/Kg	R
Volatiles	05/15/05	Chloroethane	0.183	44.5	GW-37191-051106-JRR-007	30000 U	µg/L	UJ
					GW-37191-051106-JRR-001	5.0 U	µg/L	UJ
					GW-37191-051106-JRR-002	1200 U	µg/L	UJ
					GW-37191-051106-JRR-003	100 U	µg/L	UJ
					GW-37191-051106-JRR-004	5.0 U	µg/L	UJ
					GW-37191-051106-JRR-005	5.0 U	µg/L	UJ
					GW-37191-051106-JRR-006	30000 U	µg/L	UJ
Semi-Volatiles	05/18/06	2,4-Dinitrophenol	-	36	S-37191-050306-PK-033	3700 U	µg/Kg	J
					S-37191-050306-PK-034	2000 U	µg/Kg	J
					S-37191-050306-PK-036	3900 U	µg/Kg	J
					S-37191-050306-PK-037	2000 U	µg/Kg	J

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS
SOIL AND GROUNDWATER SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

Parameter	*Calibration Date*	*Compound*	*RRF*	*%D*	*Associated Sample ID*	*Sample Results*	*Units*	*Qualifier*
Semi-Volatiles	05/18/06	Caprolactam	-	27	S-37191-050306-PK-033	770 U	µg/Kg	J
					S-37191-050306-PK-034	410 U	µg/Kg	J
					S-37191-050306-PK-036	810 U	µg/Kg	J
					S-37191-050306-PK-037	410 U	µg/Kg	J

Notes:

- Not applicable.
%D Percent Difference.
J Estimated.
R Rejected.
R Rejected.
RRF Relative Response Factor.
UJ The analyte was not detected above the sample quantitation limit. The reported quantitation limit is an estimated quantity.

TABLE 6

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS
SOIL AND GROUNDWATER SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

Parameter	*Analysis Date*	*Analyte*	*Blank Result*	*Sample ID*	*Sample Result*	*Qualified Result*	*Units*
Volatiles	05/09/06	Trichloroethene	1.7J	S-37191-050306-PK-033	1.9 J	6.1 U	µg/Kg
				S-37191-050206-PK-028	4.1	6.2 U	µg/Kg
				S-37191-050206-PK-029	4.1	6.1 U	µg/Kg

Notes:
J Estimated.
U Non-detect at associated value.

TABLE 7

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES
SOIL AND GROUNDWATER SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

Parameter	*Associated Sample ID*	*Analyte*	*MS Recovery (percent)*	*MSD Recovery (percent)*	*RPD*	*Control Limits*		*Sample Result*	*Units*	*Qualifier*
						Recovery (percent)	*RPD (percent)*			
Metals	S-37191-050206-PK-025	Lead	70	71	1	75 - 125	20	4.1	mg/kg	J
	S-37191-050206-PK-026							12.4	mg/kg	J
	S-37191-050206-PK-027							2500	mg/kg	J
	S-37191-050206-PK-028							18.3	mg/kg	J
	S-37191-050206-PK-030							86.5	mg/kg	J
	S-37191-050206-PK-031							45.9	mg/kg	J

Notes:
J Estimated.
MS Matrix Spike.
MSD Matrix Spike Duplicate.
RPD Relative Percent Difference.

TABLE 8

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INTERNAL STANDARD (IS) RECOVERIES
SOIL AND GROUNDWATER SAMPLING
NIAGARA CERAMICS
BUFFALO, NEW YORK
MAY 2006

Parameter	*Sample ID*	*IS*	*IS Area Count (percent)*	*Control Limits (percent)*	*Analytes*	*Sample Results*	*Units*	*Qualifier*
SVOCs	S-37191-050206-PK-021	Perylene-d12	236	50 - 200	Benzo(a)pyrene	110 J	µg/Kg	J
					Benzo(b)fluoranthene	240 J	µg/Kg	J
					Benzo(g,h,i)perylene	59 J	µg/Kg	J
SVOCs	S-37191-050206-PK-022	Perylene-d12	246	50 - 200	Benzo(a)pyrene	40 J	µg/Kg	J
					Benzo(b)fluoranthene	65 J	µg/Kg	J
					Benzo(g,h,i)perylene	25 J	µg/Kg	J
					Benzo(k)fluoranthene	28 J	µg/Kg	J

Notes:
J Estimated.
SVOCs Semi-Volatile Organic Compounds.