



# REMEDIAL INVESTIGATION REPORT

FORMER BUFFALO CHINA SITE  
51 HAYES PLACE  
BUFFALO, NEW YORK

BROWNFIELD CLEANUP SITE No. C915209

SEPTEMBER 2010  
REF. NO. 037191 (8)

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## 1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) was retained by Hodgson Russ, LLP (Hodgson Russ) on behalf of Buffalo China to complete a Remedial Investigation (RI) under the guidelines of the New York State Department of Environmental Conservation's (NYSDEC) Brownfield Program at the Former Buffalo China Site (Site), located at 51 Hayes Place in Buffalo, New York (Figure 1.1). The property is currently owned by Niagara Ceramics. In March 2004, Buffalo China sold the property to Niagara Ceramics but retained liability for environmental impairment, if any, of the Site and adjacent properties that may have been affected by historical Site operations before the sale. Buffalo China has now entered into a Brownfield Cleanup Agreement (BCA) with the NYSDEC to investigate and remediate, as appropriate, potential areas of environmental concern associated with the Site.

Previous investigations at the Site include a Phase I and II Environmental Site Assessment (ESA) prepared by Environmental Audits, Inc. (EA) in 2004 and a Supplemental Site Investigation (SSI) completed by CRA in 2006. The previous investigations identified the presence of inorganic compounds (i.e., metals), volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs) at the Site at concentrations exceeding 6 NYCRR Part 375 Soil Cleanup Objectives (SCOs) for restricted use. In addition, VOCs were detected in groundwater samples near the Harrison Street Warehouse at concentrations exceeding 6 NYCRR Part 703.5 Class GA Groundwater standards.

The initial scope of work for this RI is described in the Site Investigation Work Plan (CRA, June 19, 2007) (2007 SIWP). Field activities began in July 2007. Due to delays in obtaining access agreements from owners of off-Site properties, completion of the investigation activities under the initial scope of work was delayed. An Interim Site Investigation Report (ISIR) was prepared and submitted to the NYSDEC in July 2008. The ISIR summarized the field activities that had been completed under the initial scope of work as of June 2008. Because the investigation was not complete, no conclusions or recommendations were presented in the ISIR. Once the activities in the original 2007 SIWP were completed in September 2008, the scope of the investigation was expanded as described in the Supplemental Site Investigation 2008 Work Plan-Bedrock Well Installation (CRA, November 26, 2008) (2008 SSIWP), the Supplemental Site Investigation Work Plan Addendum letter dated April 29, 2009 (2009 SSIWP Addendum), and the Soil Vapor Intrusion Investigation (SVII) Work Plan dated March 27, 2009 (SVII WP).

To provide a complete and cohesive document, this report discusses all work completed under the initial 2007 SIWP and subsequent work completed under the 2008 SSIWP, the 2009 SSIWP Addendum, and the SVIWP.

## 1.1 PURPOSE

The purpose of the RI was to characterize the nature and extent of on-Site and off-Site environmental contamination from historical Site operations and activities.

## 1.2 REPORT ORGANIZATION

This report presents the findings of the RI activities and is organized as follows:

- i) Section 1.0 - Introduction: The introduction presents an overview of the project to date.
- ii) Section 2.0 - Site Description and History: Descriptions of the Site location, physical condition, current and historic use, and results of previous investigations are presented in Section 2.0.
- iii) Section 3.0 - Prior Environmental Investigations: Prior environmental investigations are presented in Section 3.0.
- iv) Section 4.0 - Remedial Investigation: A summary of the work conducted during the Remedial Investigation activities is presented in Section 4.0.
- v) Section 5.0 - Geology and Hydrogeology: The characterization of Site geology and hydrogeology is presented in Section 5.0.
- vi) Section 6.0 - Analytical Results: The analytical data collected during the RI are presented and presented in Section 6.0.
- vii) Section 7.0 - 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 7.0.
- viii) Section 8.0 - Fish and Wildlife Impact Analysis: The results of a Fish and Wildlife Impact Analysis are presented in Section 8.0.
- ix) Section 9.0 - Conclusions: A summary of the conclusions of the investigation is presented in Section 9.0.
- x) Section 10.0 - References: A list of references materials utilized in the preparation of this RI/FS is presented in Section 10.0.

## **2.0 SITE DESCRIPTION AND HISTORY**

### **2.1 SITE DESCRIPTION AND HISTORY**

The Former Buffalo China Site is located at 51 Hayes Place in Buffalo, Erie County, New York. The Site layout is shown on Figure 2.1. The Site encompasses approximately 10 acres and is bound on the north by Conrail Railroad tracks, on the east by a warehouse currently leased by Robinson Home Products and other commercial/industrial facilities, and on the south and west by commercial, industrial, and residential properties. Interstate I-190 is located nearby to the south of the Site, while the former City of Buffalo School 26 and adjacent playground is located a few hundred feet to the southwest. The nearest body of water is the Buffalo River, located approximately 1/4- to 1/2-mile south and east of the Site. The primary access to the Site is through the east side of the Site, from either Buffalo China Road or Hayes Place.

The Site includes a manufacturing building, a warehouse, outdoor storage silos, a rail spur, roadways, and parking areas. The manufacturing building is a multi-story structure covering approximately 4 acres. The building is connected to the Robinson Home Products Warehouse to the east. Another smaller building referred to as the Harrison Street Warehouse is located at the northwest end of the Site and covers an area of approximately 0.5 acres. The property has been used for the manufacture of china for the past 100 years. During that period, the manufacturing facility expanded to adjacent industrial properties which historically included the Standard Mirror Company and Atlas Wrecking. The Harrison Street Warehouse was once a part of the Standard Mirror Company facility.

### **2.2 PHYSICAL SETTING**

The Site lies within the City of Buffalo corporation limits on a relatively flat parcel of land. The Site is located in a multi-use neighborhood within the City comprised of industrial, commercial, and residential properties.

### **2.3 GEOLOGY**

According to a Phase I report prepared by EA in February 2004, the soils in the area of the Site were deposited by extensive glaciation forming a glacial till deposit underlain by limestone bedrock. The bedrock in the area of the Site, Onondaga Limestone (Nedrow Member), is generally 5 feet or more below ground surface (bgs). The Nedrow Member

is an intermixed light-grey limestone and dark-grey chert bedrock. Bedrock outcrops were not observed on the Site.

Also according to the Phase I report prepared by EA, the soils beneath the Site are classified as urban land (Ud). Urban land is generally covered by asphalt, pavement, concrete, buildings, and other impervious structures. It includes parking lots, shopping and business centers, and industrial parks. These areas generally range from 3 to 500 acres or more and are mostly level to gently sloping. The former Buffalo China Site and the surrounding neighborhood are consistent with this description of urban land.

According to the Phase I and Phase II ESAs completed by EA and the 2006 SSI completed by CRA, the Site is underlain by fill materials ranging in thickness from zero to 4 feet bgs. Fill materials are underlain by clay deposits which range in depth from 4 feet bgs extending to a depth of at least 16.9 feet bgs (the maximum depth penetrated by boreholes). Underlying the clay deposits is bedrock, which for the Buffalo area typically consists of Onondaga Limestone.

#### **2.4 TOPOGRAPHY AND SURFACE WATER DRAINAGE**

The USGS 7.5-minute Topographic Quadrangle Map of Buffalo, SE, New York indicates that the Site's ground surface is generally level. Aside from the hilly nature of the on-Site mound of soil, a visual inspection confirmed that the Site is generally flat with some gentle slopes for runoff to Site storm sewers or ditches. The general direction of on-Site surface water drainage appears to be toward a series of storm drains located throughout the paved portions of the Site. The on-Site storm sewers are connected to the City of Buffalo combined sewer system. Under normal conditions the drainage flows to the Buffalo Sewer Authority Bird Island Treatment Plant. Under overflow conditions, the flow would be discharged through the Hamburg Drain, which discharges near the mouth of the Buffalo River.

The nearest natural body of water is the Buffalo River, which is located approximately 0.4 miles south of the Site. The Buffalo River meanders in a westerly direction toward Lake Erie located approximately 2.8 miles west of the Site. The surface elevation for the Site is approximately 590 feet above mean sea level (AMSL).

## 2.5 REGIONAL HYDROGEOLOGY

The major regional aquifer in the area of the Site is located in the upper bedrock, which consists of the Onondaga Limestone Formation. The Onondaga Formation is primarily a cherty limestone. Recharge to the aquifer occurs through precipitation-induced infiltration into the bedrock. The numerous open joints and bedding planes of the bedrock provide the primary paths for groundwater flow within the rock. Regionally, the groundwater moving through the Onondaga discharges into other bedrock formations or to surface water bodies directly. Based on the EA Phase I report, it appears that both the shallow and regional (deep) groundwater both flow in a westerly-southwesterly direction toward Lake Erie.

Yields of up to several hundred gallons per minute are possible in the Onondaga Limestone Formation. Groundwater is not used as a source of potable water in the portion of Erie County in which the Site is located.



### 3.0 PRIOR ENVIRONMENTAL INVESTIGATIONS

As indicated in Section 1.0, previous investigations at the Site include a Phase I and Phase II Environmental Site Assessment (ESA), prepared by Environmental Audits, Inc. (EA) in 2004 and a Supplemental Site Investigation (SSI) completed by CRA in 2006. The previous investigations identified the presence of inorganic compounds (i.e., metals), volatile organic compounds (VOCs), and semi-volatile organic compounds (SVOCs) in soils at the Site at concentrations exceeding 6 NYCRR Part 375 Restricted Use Soil Cleanup Objectives (RUSCOs). In addition, VOCs were detected in groundwater samples near the Harrison Street Warehouse at concentrations exceeding 6 NYCRR Part 703.5 Class GA Groundwater standards.

A copy of the Focused Phase II Environmental Assessment: Industrial Property, 51 Hayes Place, Buffalo, New York, report dated March 11, 2004, is provided as Appendix A. The report identifies the "primary conditions of concern" for the Site 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.

Selected soil samples were submitted for laboratory analysis for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals, or a subset thereof. The exterior areas that were assessed include "Former Collision Shop Area," "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 compared to the Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels (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 (see Appendix A). 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.
- Field observations and analytical data identified the presence of significant subsurface concentrations of petroleum related VOCs, SVOCs, and metals in the Former Collision Shop Area.
- The subfloor soil sample from the Glazemaking room exhibited an elevated lead concentration (10,000 ppm).

The NYSDEC was notified of the presence of petroleum related contamination identified in the Former Collision Shop Area and Spill Number 0375511 was assigned to the area. Hazard Evaluations, Inc. of Orchard Park, New York, on behalf of Buffalo China, conducted remedial activities to address the petroleum contamination with oversight from the NYSDEC. The spill number was closed November 1, 2005.

Based on the findings of the investigations conducted by EA, CRA developed the scope of work for the 2006 SSI. The investigative results for the Phase II investigation conducted by EA were summarized and presented as Appendix B in the 2006 SSI Report dated June 2006. The results of the SSI conducted by CRA are summarized below.

### **3.1 2006 SUPPLEMENTAL SITE INVESTIGATION ACTIVITIES**

Seventeen soil borings were advanced and six groundwater monitoring wells (MW-4 through MW-9) were installed as part of the 2006 SSI. During the investigation, 32 soil samples were collected from 17 boring locations along with groundwater samples from six new monitoring wells and three existing monitoring wells. The soil samples were analyzed for VOCs, SVOCs, and lead. The groundwater samples were analyzed for VOCs, SVOCs, total lead and dissolved lead.

#### **3.1.1 2006 SSI SOIL RESULTS**

Table 3.1 and Figure 3.1 summarize 2006 SSI soil results that are above applicable criteria. The detected lead concentrations were greater than the Part 375 RUSCOs for industrial use criterion of 3,900 milligrams per kilogram (mg/kg) in two of 32 samples, specifically borehole BH-7 (4,980 mg/kg) and BH-9 (9,250 mg/kg). These two soil

samples were collected from the top 2 feet of soil. Specifically, BH-7 was collected from 1.4 to 1.8 feet bgs and BH-9 was collected from 0.5 to 1.0 feet bgs. The lead concentrations in deeper sample intervals at BH-1, BH-5, BH-9, BH-15, and BH-16 were below the Part 375 residential use criterion for lead of 400 mg/kg, indicating that the depth of lead impacts in soil are limited to less than 2 feet bgs.

In general, the highest detected concentrations of lead at the Site were in the area between the Former Buffalo China building and the Harrison Street Warehouse, at locations BH-7 (4,980 mg/kg) and BH-9 (9,250 mg/kg). The highest detected concentration of lead in soil from the north side of the Site was found along the Conrail Railroad tracks at location BH-15 (804 mg/kg). This concentration is less than the applicable Soil cleanup Objective (SCO) for industrial use (3,900 mg/kg). At the borehole sample locations along the south side of the Site (BH-3, BH-4, BH-11, BH-12, BH-13, and BH-14), the detected lead concentrations were less than the Part 375 SCO for industrial use of 3,900 mg/kg.

Detected VOC concentrations in on-Site soil samples included cis-1,2-dichloroethene (cis-1,2-DCE), methylene chloride, tetrachloroethene (PCE), and trichloroethene (TCE). The detected concentrations were less than the RUSCOs for industrial use with the exception of BH-5. At this location, the detected concentration of TCE in the shallow sample interval (1.6 to 2.5 feet) was 670 mg/kg, which is greater than the SCO of 400 mg/kg for industrial use. The detected concentration of TCE in the deeper sample interval (5.5 to 6.5 feet) was 88 mg/kg. Therefore, it was concluded that a surface or near-surface source of VOCs existed in the area of borehole BH-5.

Various SVOCs, primarily polynuclear aromatic hydrocarbons (PAHs), were also detected in Site soil. In general, the detected concentrations were below the industrial use RUSCOs, with the exception of BH-13, located along the south side of the Site where benzo(a)pyrene was detected at a concentration of 1.3 mg/kg, which exceeds the industrial use SCO of 1.1 mg/kg. The detected concentrations of SVOCs in Site soil are generally lower in the deeper sample intervals, indicating that the depth of SVOC impact is also limited to shallow soils.

### **3.1.2 2006 SSI GROUNDWATER RESULTS**

The groundwater samples collected during the 2006 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 3.2 and Figure 3.2 summarize the groundwater analytical results that exceed applicable criteria from the 2006 SSI.

The detected VOCs in groundwater included 4-methyl-2-pentanone, cis-1,2-DCE, methyl tert butyl ether, TCE, and vinyl chloride. The primary VOCs of interest included TCE and its degradation product cis-1,2-DCE. These chemicals were detected in concentrations exceeding their respective NYS groundwater quality standard at groundwater monitoring wells MW-4, MW-5, and MW-6, all of which are located in the area between the Former Buffalo China building and the Harrison Street Warehouse. The highest VOC concentrations were detected at MW-5. Vinyl chloride was also detected at MW-6. The concentrations of VOCs were generally non-detect at MW-9, which is considered an upgradient well located along the northern boundary of the Site, and at MW-7, located to the south of the Former Buffalo China building. TCE and cis-1,2-DCE were also detected at MW-8, located to the north of the Former Buffalo China building, but at much lower concentrations when compared to VOC concentrations detected at MW-5. The presence of VOCs in the groundwater correlated with the soil sample results, indicating a possible VOC source area near the Harrison Street Warehouse.

Lead was detected in the groundwater sample from monitoring well MW-8. The total concentration of lead reported in the groundwater sample from MW-8 was 46 micrograms per liter ( $\mu\text{g/L}$ ); however, dissolved lead was not detected at this location at or above  $3 \mu\text{g/L}$ . The turbidity of the groundwater sample collected from MW-8 was approximately 200 nephelometric turbidity units (NTU) indicating the presence of suspended sediment in the samples. Based on the laboratory results for dissolved lead, the elevated concentration of total lead is most likely due to the presence of sediment in the sample and not indicative of groundwater quality.

### **3.2 2006 SUPPLEMENTAL SITE INVESTIGATION CONCLUSIONS**

Based on the results of the SSI and the Qualitative Human Health Exposure Assessment completed for the 2006 SSI, the following conclusions were made:

1. The borehole investigation identified the presence of fill material to depths of up to 4 feet 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 feet bgs or less.
2. Analytical data for soil samples identified the presence of lead, VOCs, and SVOCs. The chemical impacts are primarily found in the shallow soil/fill material. The chemical concentrations are considerably less in the underlying sample intervals.
3. Groundwater was found within monitoring wells screened within the fill/clay material. The depth to groundwater varied from approximately 1 foot

- to 7.5 feet bgs. Water level data indicated that the groundwater hydraulic gradient was southerly.
4. Analytical data for groundwater samples identified the presence of VOCs at on-Site monitoring wells. The most frequently detected VOCs were TCE and cis-1,2-DCE. The greatest VOC concentrations were detected at MW-5, located in the area between the former Buffalo China 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. A qualitative exposure assessment was completed based on the 2006 SSI and 2004 EA Phase II investigation data. The 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 included 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. Chemicals of potential concern (COPC) were identified by comparison of maximum detected concentrations to conservative screening criteria for soil and groundwater. The identified COPCs for soil included 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 included cis-1,2-DCE, TCE, vinyl chloride, and lead.

#### **4.0 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION**

The scope of the RI was initially developed based on the findings of the 2006 SSI and expanded after each successive investigation completed by CRA in 2007, 2008, and 2009. The primary objective of this RI was to gather the data necessary to complete the characterization of chemical presence in on-Site and off-Site soil, groundwater, and other potentially affected media in order to identify and evaluate necessary and appropriate remedial alternatives.

#### **4.1 APPLICABLE REGULATORY STANDARDS**

The current regulatory standards applicable to evaluating and characterizing the soil and groundwater quality at the Site are:

- i) 6 NYCRR Part 375 Environmental Remediation Programs Restricted Use Soil Cleanup Objectives for Protection of Public Health - Industrial Use for the evaluation of on-Site soils.
- ii) 6 NYCRR Part 375 Environmental Remediation Programs Restricted Use Soil Cleanup Objectives for Protection of Public Health - Residential Use for evaluation of off-Site soils.
- iii) Water Quality Standards for Toxic and Other Deleterious Substances, 6 NYCRR, Part 703.5 for the evaluation of overburden and bedrock groundwater.
- iv) Technical and Operation Guidance Standards (TOGS) 1.1.1, Ambient Water Quality Standards and Guidance Values dated October 22, 1993 (reissued June 1998).

The current criteria for evaluating soil vapor are the decision matrices in the New York State Department of Health's (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York dated October 2006.

#### **4.2 SCOPE OF WORK**

The initial scope of work for RI is described in the 2007 SIWP. Field activities were completed between July 2007 and September 2008. An ISIR was prepared and submitted to the NYSDEC in July 2008. The ISIR summarized the field activities that had been completed under the initial scope of work as of June 2008. Because the investigation was not complete, no conclusions or recommendations were presented in

the ISIR. Once the activities in the original 2007 SIWP were completed in September 2008, the scope of the investigation was expanded as described in the 2008 SSIWP, the 2009 SSIWP Addendum, and the SVIWP. The following sections discuss the investigation activities completed under each of the work plans.

#### **4.2.1 SI WORK PLAN**

Investigation activities completed under the 2007 SIWP included surface soil sampling, soil boring advancement, collection of subsurface soil samples, monitoring well installation, and collection of groundwater samples.

##### **4.2.1.1 2007 SIWP SURFACE SOIL SAMPLING**

Surface soil sampling was completed under the scope of the 2007 SI WP in May and August 2008 to evaluate lead concentrations in the on-Site and off-Site surface soils based on the results of the 2006 SSI. Surface soil samples were collected from designated locations using single-use disposable plastic trowels. At each location, a representative soil sample set was collected. Each sample set consisted of one sample from zero to two inches bgs and one sample from two inches to four inches bgs. The samples were placed in pre-cleaned sample containers. Twenty-five locations were sampled (locations SS-1 through SS-25). One sample set was collected from each location for a total of 50 surface soil samples. In addition, two blind field duplicate samples were collected for quality control purposes. Surface soil sample locations are presented on Figure 4.1 and a summary of the surface soil sample locations and analysis is presented in Table 4.1. The surface soil sample locations are as follows:

- i) Three sets of surface soil samples were collected on-Site. One sample set was collected near the northeast corner of the Harrison Street Warehouse (location SS-2) (northeast Harrison Street Warehouse), one on the south side of the Harrison Street Warehouse (location SS-11) (south Harrison Street Warehouse), and one from the top of the Soil Mound (location SS-1).
- ii) Twelve sample sets were collected from five properties on Harrison Street; (82 Harrison [locations SS-17 and SS-18], 118 Harrison [locations SS-19 through SS-24], 103 Harrison [location SS-10], 127 Harrison front yard [location SS-8], 127 Harrison back yard [location SS-9], and 138 Harrison [location SS-6]).
- iii) One sample set was collected from 148 Milton Street (location SS-7).
- iv) Six sample sets were collected from six properties on Lester Street (22 Lester Street [location SS-15], 36 Lester Street [location SS-16], 55 Lester Street North

[location SS-3], 55 Lester Street South [location SS-4], 58 Lester Street [location SS-5]), 66 Lester Street [location SS-25]).

- v) Three sample sets were collected from three properties on Hayes Place (20 Hayes Place [location SS-14], 34 Hayes Place North [location SS-12], and 34 Hayes Place South [location SS-13]).

Based on the results of the surface soil sampling completed under the 2007 SIWP, it was concluded that no further surface soil investigation activities were necessary. The surface soil sample results are discussed in detail in Section 6.2.

#### **4.2.1.2 SOIL BORING ADVANCEMENT AND SUBSURFACE SOIL SAMPLING**

Subsurface soil sampling was completed under the scope of the 2007 SIWP in July 2007 and May 2008 to evaluate soil conditions in the on-Site and off-Site subsurface soils. A total of 24 subsurface soil samples, including three blind field duplicate samples, were collected from 21 locations both on and off Site. Subsurface sample locations are shown on Figure 4.2. A summary of the subsurface samples, the purpose of each sample, and analytical parameters is presented in Table 4.2. Stratigraphic and monitoring well construction logs are presented in Appendix B.

The locations of the subsurface soil samples collected per the 2007 SIWP are as follows:

- i) One sample was collected along the access drive north of the ceramics building and south of the CSX Railroad ROW (location SB-1-07).
- ii) Six samples, including two blind field duplicates, were collected from the soil mound (Soil Mound) north of the Harrison Street Warehouse. The boreholes were staggered so that there was one borehole advanced in the west, center, and east sections of the Soil Mound, and one advanced in the dog-leg section of the mound (locations SB-2-07, SB-3-07, SB-4-07, and SB-17-07).
- iii) Seven samples, including one blind field duplicate, were collected east of the Harrison Street Warehouse (locations SB-5-07, SB-6-07, SB-7-07, SB-8-07, SB-9-07, SB-10-07).
- iv) Six samples were collected from beneath the footprint of the Harrison Street Warehouse (locations SB-11-07, SB-12-07, SB-13-07, SB-14-07, SB-15-07, and SB-16-07).



- v) One sample was collected south of the Harrison Street Warehouse (location SB-18-07).
- vi) One sample was collected at 20 Hayes Place (location SB-18-08).
- vii) One sample was collected at 34 Hayes Place (location MW-17).
- viii) One soil sample was collected at 103 Harrison Street (location MW-14).

Borehole advancement for geologic logging and sampling of subsurface soils was performed using either hollow stem auger or direct push technique. At locations where a monitoring well was to be installed, the borehole was advanced using four-inch inside diameter (ID) (eight-inch outside diameter [OD]) hollow-stem augers from ground surface to the desired depth of installation. All other boring locations were sampled using direct push technology.

Soil samples were collected continuously during soil boring and/or monitoring well installation. Each soil boring was advanced until bedrock was encountered. Headspace screening of the collected samples was completed utilizing a photoionization detector (PID). Headspace screening samples were placed in zip-lock bags and left at room temperature for 30 minutes prior to monitoring. Visual observations and field screening results were recorded. Samples were selected for analysis based on the results of the headspace screening and other field observations (i.e., color, odor, etc.). The results of the headspace screening are provided on the stratigraphic logs in Appendix B.

Subsurface soil sampling results are discussed in Section 6.3.

#### **4.2.1.3 OVERBURDEN MONITORING WELL INSTALLATION AND GROUNDWATER SAMPLING**

Eight new overburden groundwater monitoring wells (MW-10 through MW-17) were installed as part of the scope of the 2007 SIWP to evaluate groundwater conditions both on and off-Site. Monitoring wells were installed in July 2007, May 2008, and August 2008. Monitoring well locations are shown on Figure 4.3. A summary of monitoring well installation and sampling information is provided on Table 4.3. Well diagrams and construction details are provided on the stratigraphic logs presented in Appendix B.

Overburden wells were constructed of two-inch diameter polyvinyl chloride (PVC) riser pipe typically fitted with a five-foot long, 10-slot screen. The annular space between the screen and the borehole wall was backfilled with double ought quartzite sand to approximately one foot above the top of the well screen. The screen and sand pack were

isolated by placing a minimum of two feet of bentonite pellets on top of the sand pack. A cement/bentonite grout was then placed above the bentonite seal to approximately one foot below grade. All wells except MW-12 were completed by installing flush-mount casings for protection. Monitoring well MW-12 was completed as a stick up well with a protective casing.

The following overburden wells were installed per the 2007 SIWP:

- MW-10 (August 2008 - off Site)
- MW-11 (August 2008 - off Site)
- MW-12 (July 2007 - on Site)
- MW-13 (July 2007 - on Site)
- MW-14 (May 2008 - off Site)
- MW-15 (May 2008 - off Site)
- MW-16 (May 2008 - off Site)
- MW-17 (May 2008 - off Site)

Monitoring wells were developed following installation and prior to sampling. Well development logs are presented in Appendix C. Prior to sampling, wells were purged until water quality parameters stabilized. Stabilization was considered achieved when water quality parameters did not deviate more than 10 percent from previous readings. Purging and sample records are provided in Appendix D.

All wells were sampled for TCL VOCs, while a select number of wells were also sampled for TCL SVOCs, total and dissolved TAL Metals, total and dissolved lead, pesticides, herbicides, and PCBs. Table 4.3 provides details of the parameters sampled at each well.

Four overburden monitoring wells (MW-13 through MW-16) were unable to be sampled due to insufficient volume or they were dry during each sample event.

Existing monitoring wells MW-4 through MW-6, MW-8, MW-9, and MW-12 were sampled in August 2007 and May 2008. In May 2008, well MW-17 was added to the sampling program. Monitoring wells MW-10 and MW-11 were installed in August of 2008 and sampled in September 2009.

The results of the groundwater sampling completed under the 2007 SIWP identified the presence of VOCs in the Site overburden groundwater. The highest VOC concentrations were detected in monitoring wells MW-4, MW-5, and MW-12.

Groundwater sampling results are discussed in detail in Section 6.4.

#### **4.2.1.4 SURVEY**

All surface soil samples, soil borings, and monitoring wells were surveyed to obtain accurate horizontal location and vertical elevations of ground surface and tops of well casings relative to mean sea level.

Each location was surveyed to the nearest 0.01 foot relative to the Universal Transverse Mercator (UTM) coordinates North American Datum (NAD83). Ground elevations were surveyed at each location to the nearest 0.01 foot relative to the North American Vertical Datum (NAVD88). Survey control points are present throughout the Facility.

#### **4.2.2 2008 SSI WORK PLAN**

Based on the findings of the completed 2007 SIWP, the 2008 SSIWP was prepared to evaluate bedrock groundwater conditions and determine if VOCs were present in the bedrock groundwater. Under the 2008 SSIWP, one overburden monitoring well and six bedrock monitoring wells were installed in December 2008. Monitoring well locations are shown on Figure 4.3. The following wells were installed under the 2008 SSIWP:

- MW-18 (on Site overburden well)
- MW-5A (on Site bedrock well)
- MW-7A (on Site bedrock well)
- MW-9A (on Site bedrock well)
- MW-13A (on Site bedrock well)
- MW-14A (off Site bedrock well)
- MW-15A (off Site bedrock well)

Subsurface soil sampling was not included as part of the 2008 SSIWP.

The overburden wells were installed as described in Section 4.2.1. Bedrock monitoring wells were completed as open coreholes. Borings for bedrock wells were advanced to the top of the bedrock using an auger/rollerbit. After bedrock was encountered, a six-inch tri-cone roller bit was used to drill approximately two feet into the bedrock, enabling the placement of a four-inch diameter steel riser sealed into the top of the bedrock unit. The annular space between the borehole and the casing was filled with bentonite grout. The installation of these casings effectively sealed off the overburden

from the bedrock zone, ensuring no transport between the overburden and bedrock units.

The bedrock was cored in five-foot runs. Upon completion of each five feet core run, the water producing characteristics of the open interval were determined by conducting "bail-down" and recovery tests. Coring was terminated when the first interval producing sufficient water recharge for sampling was encountered.

Bedrock cores were logged noting the rock description, the core run, the depth of the run, percent recovery, and the rock quality designation (RQD). Lithologic logs of the cored bedrock are presented in Appendix B.

Wells were surveyed and developed as discussed above in Section 4.2.1. Well development logs are presented in Appendix C. One round of groundwater sampling was completed under the 2008 SSIWP. All wells were purged prior to sampling as discussed in Section 4.2.1. Purging and sample records are provided in Appendix D. Wells MW-4 through MW-7, MW-9 through MW-12, MW-17, MW-18, MW-5A, MW-7A, MW-9A, and MW-13A through MW-15A were sampled in January 2009. Monitoring well MW-8 could not be located due to ice and snow cover in January 2009 and as a result was sampled in March 2009. Groundwater samples collected under the 2008 SSIWP were analyzed for TCL VOCs.

The results of the sampling completed in January 2009 were consistent with the previous sample results and identified the presence of VOCs at concentrations that exceed NYS groundwater standards in the bedrock groundwater both on Site and off Site.

Groundwater sampling results are discussed in detail in Section 6.4.

#### **4.2.2.1 HYDRAULIC CONDUCTIVITY TESTING**

The 2008 SSIWP also included hydraulic conductivity testing on all existing monitoring wells. Single well response tests were conducted at all each well. Two rising head and two falling head tests were conducted at each location. The four results for each well were used to calculate give an average hydraulic conductivity for that well. The Site-wide average hydraulic conductivity for the overburden aquifer and the bedrock aquifer were calculated from the individual monitoring well hydraulic conductivity measurements. The slug tests were conducted as follows:

- The water level in the monitoring well was measured.

- A pressure transducer was installed at the monitoring well and set at a one-second recording interval.
- The water level was allowed to equilibrate from the addition of the pressure transducer.
- A slug of a known volume was inserted into the water column of the well.
- Manual water level measurements were collected at 30-second intervals for the first five minutes and then at one-minute intervals for the next 10 minutes. If after 15 minutes the water level had not recovered to within 10 percent of the original water level, manual water levels were recorded at five-minute intervals for one hour or until the water level recovered to within 10 percent of the initial water level.
- After the well recovered to within 10 percent of the initial water level or one hour and 15 minutes had elapsed, the slug was removed from the water column.
- Manual water levels were recorded at the intervals described above.
- After water level recovery to within 10 percent of the initial water level or one hour and 15 minutes had elapsed, the test was completed.
- The pressure transducer data was downloaded.

After the hydraulic conductivity fieldwork was completed, the well response data were analyzed using AQTESOLV™ software to calculate the hydraulic conductivity. The Site average overburden and bedrock hydraulic conductivity were calculated based on the AQTESOLV™ results.

The results of the hydraulic conductivity testing are discussed in Section 5.4.2.

#### **4.2.3      2009 SSI WORK PLAN ADDENDUM**

Based on the results of the groundwater sampling completed under the 2008 SSIWP, additional overburden and bedrock monitoring well installation, groundwater sampling, and soil sampling was completed under the 2009 SSIWP Addendum.

Under the 2009 SSIWP Addendum, four overburden and nine bedrock wells were installed at both on Site and off Site locations to delineate further the horizontal extent of VOC presence in the overburden and bedrock groundwater. Subsurface soil samples were also collected during the monitoring well installations to evaluate the presence of VOCs in soils at the monitoring well locations. The monitoring well installation and subsurface soil sampling activities were completed in May and June 2009. Groundwater sampling was completed in July 2009.

The following Monitoring wells were installed under the 2009 SSIWP Addendum:

- MW-6A (on Site bedrock well)
- MW-18A (on Site bedrock well)
- MW-19 (on Site overburden well)
- MW-19A (on Site bedrock well)
- MW-20 (on Site overburden well)
- MW-20A (on Site bedrock well)
- MW-21A (on Site bedrock well)
- MW-22 (off Site overburden well)
- MW-22A (off Site bedrock well)
- MW-23A (off Site bedrock well)
- MW-24A (off Site bedrock well)
- MW-25 (off Site overburden well)
- MW-25A (off Site bedrock well)

With the exception of MW-18A, soil samples were collected at each monitoring well location. Soil samples were collected as described in Section 4.2.1 and analyzed for TCL VOCs.

The new monitoring wells were installed, surveyed, and developed as described in Section 4.2.1. Stratigraphic, lithologic, and well construction logs are provided in Appendix B. Development records are provided in Appendix C.

In July 2009, all overburden and bedrock groundwater monitoring wells were sampled for TCL VOC analysis following USEPA Method SW846 8260. Wells were purged and sampled as described in Section 4.2.1. Purging and sample records are provided in Appendix D. A total of 15 overburden monitoring wells (MW-4 through MW-12, MW-17 through MW-20, MW-22, and MW-25) and 15 bedrock monitoring wells (MW-5A through MW-7A, MW-9A, MW-13A through MW-15A, and MW-18A through MW-25A) were sampled under the 2009 SSIWP Addendum.

The results of the sampling completed in July 2009 delineated the limits of the VOC presence in both the overburden and bedrock.

#### **4.2.4 SOIL VAPOR INTRUSION INVESTIGATION**

To investigate the potential for contaminants in the subsurface to volatilize from soil and groundwater to soil gas within the unsaturated overburden and then into building

structures at off Site locations, a Soil Vapor Intrusion (SVI) investigation was completed in November 2009. The investigation was completed in accordance with NYSDOH's "Guidance for Evaluating Soil Vapor Intrusion in the State of New York," October 2006 (SVI Guidance).

The SVI investigation included the collection of five sub-slab soil vapor samples, five indoor air samples, and two outdoor air samples. A summary of SVI investigation samples collected and analytical parameters is presented on Table 4.4. SVI investigation sample locations are presented on Figure 4.4.

SVI investigation field activities are summarized in the following sections.

#### **4.2.4.1 SUB-SLAB PROBE INSTALLATION**

Four semi-permanent, sub-slab gas probes were installed at the four locations identified on Figure 4.4. One sub-slab sample and one indoor air sample was collected from each of these locations. Each sub-slab gas probe consists of one shallow soil gas probe installed in a central location away from foundation footings.

The sub-slab probe was installed by drilling a 3/8-inch-diameter hole through the slab with a drill and spline bit. After drilling through the slab, the slab thickness was measured and recorded. A 1-inch-diameter hole is then drilled within the 3/8-inch hole to a depth of approximately 1.5 inches into the top of the slab. The sub-slab probe consists of a 1.5-inch-long by 3/8-inch OD brass pipe connected to a 3/4-inch brass coupling and topped off with a 3/8-inch by 1/2-inch stainless steel set screw "cap." The annular space between the fittings and the slab was filled with non-shrink cement grout. A typical sub-slab, soil vapor probe installation is depicted on Figure 4.5.

#### **4.2.4.2 SUB-SLAB PROBE SAMPLING**

The sub-slab samples were collected using 6-liter capacity Summa™ canisters fitted with a laboratory calibrated critical orifice flow regulation device sized to allow the collection of the soil vapor samples over a 24-hour period. A typical setup for a soil vapor intrusion canister is depicted in Figure 4.6. Summa™ canisters that were laboratory batch certified clean at the 100 percent level were used so data could be evaluated for assessing potential human health risk. The 24-hour sample collection time for a 6-liter capacity Summa™ canister corresponds to a maximum flow rate of approximately 0.0042 liters per minute (L/min). This soil gas sample collection flow rate is well below

the maximum flow rate of 0.2 L/min recommended by NYSDOH (2006). A maximum flow rate of 0.1 L/min is recommended to limit VOC stripping from soil, prevent the short-circuiting of ambient air from ground surface that would dilute the soil gas sample, and increase confidence regarding the location from which the soil gas sample is obtained. The low flow rate of 0.0042 L/min provides the most representative sample of in-situ conditions.

Prior to sample collection, the soil gas probe was purged at a maximum flow rate of 0.1 L/min. A maximum of three soil gas probe “dead volumes” were purged to remove potentially stagnant air from the internal volume of the soil gas probe and ensure that soil gas representative of the conditions beneath the sub-slab was drawn into the Summa™ canister. The soil gas probe “dead volumes” were calculated based on field measurements of probe construction (i.e., tubing length and tubing inner diameter) and aboveground sampling equipment. A helium blanket over the sample probe was used during sampling activities to evaluate short-circuiting of the sampling train from the ambient air.

#### **4.2.4.3 INDOOR AIR SAMPLING**

Indoor air samples were collected concurrently with the sub-slab soil vapor samples. The samples were collected from the breathing zone between three and five feet above the ground/floor surface in the same area as the sub-slab sample. Indoor air samples were collected using six-liter capacity Summa™ canisters fitted with a laboratory-calibrated critical orifice flow regulation device sized to allow the collection of the soil gas samples over a 24-hour period.

#### **4.2.4.4 OUTDOOR AIR SAMPLING**

Ambient outdoor air vapor samples were collected upwind of the buildings in which the sub-slab and indoor air samples were collected. One ambient outdoor air sample was collected concurrently with the sub-slab soil vapor and indoor air samples. Outdoor air samples were collected from the breathing zone between three feet and five feet above the ground surface over a 24-hour duration. The 24-hour sample collection time for a six-litre capacity Summa™ canister corresponds to a maximum flow rate of approximately 0.0042 L/min.



All SVI investigation samples were analyzed following the USEPA's TO-15 gas GC/MS methodology and were completed by Test America of Knoxville, Tennessee. SVI investigation results are discussed in Section 6.5.

#### **4.2.5 WASTE HANDLING, STORAGE AND DISPOSAL**

Investigation derived wastes (IDW) including soil cuttings, and drilling and decontamination water generated during the investigation, were collected and placed directly into 55-gallon drums. These drums were then labeled and stored on-Site pending waste characterization. All IDW were ultimately disposed off Site at a licensed disposal facility in accordance with applicable regulatory requirements.

## **5.0 GEOLOGY AND HYDROGEOLOGY**

### **5.1 GEOLOGY**

Based on the 2007, 2008, and 2009 investigation activities, the fill encountered at the Site ranged in thickness from 0.5 feet to 16 feet, with the thickest fill encountered along the Soil Mound north of the Harrison Street Warehouse. The Soil Mound is approximately 10 feet higher in elevation than the surrounding Site topography. It should be noted that the borings at these locations began at the top of the Soil Mound, resulting in an increased measured thickness for the fill material. The average thickness of the fill considering both on- and off-Site locations, and disregarding the soil mound thicknesses, is 2.62 feet.

The native soils underlying the fill generally consist of dense clay underlying sand and/or silt; however, the soil stratigraphy is highly variable, and silt and clay generally underlies the fill at the Site. The average clay thickness considering both on- and off-Site locations is 7.34 feet. The bedrock was overlain by clay at all investigation locations.

Bedrock cores were collected and logged at 15 bedrock monitoring well locations. These cores indicate a light to dark gray cherty limestone (the Onondaga Limestone). The limestone is massive and moderately fractured or broken at the top of the formation.

### **5.3 BEDROCK SURFACE CONTOUR**

Based on field observations and the measured depth to the top of bedrock for on-Site and off-Site locations, the average depth to bedrock is 9.72 feet bgs. A top of bedrock surface contour map (Figure 5.1) was prepared based on the field measurements. A review of Figure 5.1 indicates that the top of bedrock surface beneath the Site dips similar to the gentle regional dip, which is to the south with a gradient of approximately 45 feet per mile. The bedrock surface is not flat, but tends to undulate, with localized mounds and depressions. These features could influence local groundwater flow in the overburden and shallow bedrock.

### **5.4 SITE HYDROGEOLOGY**

Groundwater is first encountered at the Site in the low permeability, silty clay. The average depth to groundwater is approximately 6.63 bgs across the Site based on the most comprehensive round of water level measurements obtained in July 2009.

As depicted on Figures 5.2 and 5.3, groundwater flow direction is generally to the west southwest at a gradient of 0.023 foot per foot in the overburden and 0.024 foot per foot in the bedrock. Seasonal variations in groundwater elevations between January 2009 and July 2009 ranged from several tenths of a foot to slightly greater than a foot. From a seasonal perspective, it is anticipated that water levels would rise and fall congruently across the Site. Accordingly, groundwater flow conditions, as depicted on Figures 5.2 and 5.3, would accurately represent groundwater flow at other times of the year.

Results of the in-situ hydraulic conductivity tests performed in the monitoring wells at the Site are shown in Appendix E and are summarized in Table 5.1. The hydraulic conductivity of the overburden ranged from approximately  $1.48\text{E-}05$  cm/sec at monitoring well MW-11 to  $5.58\text{E-}04$  cm/sec at monitoring well MW-7. The geometric mean hydraulic conductivity for the overburden wells is calculated to be  $1.95\text{E-}04$  cm/sec. The hydraulic conductivity of the bedrock ranged from approximately  $2.24\text{E-}04$  cm/sec at monitoring well MW-23A to  $1.06\text{E-}01$  cm/sec at monitoring well MW-25A. The geometric mean hydraulic conductivity for the bedrock wells is calculated to be  $2.79\text{E-}02$  cm/sec.

## 6.0 ANALYTICAL RESULTS

Samples of environmental media, including surface soil, subsurface soil, groundwater, soil vapor, and indoor air were collected and analyzed during the RI. All samples, with the exception of soil vapor and indoor air, were submitted to Test America in Pittsburgh, Pennsylvania under standard chain of custody (COC) procedures. Soil vapor and indoor air samples were submitted to Test America in Knoxville, Tennessee. The data resulting from the field activities have been reviewed for quality assurance as described in the Quality Assurance Project Plan (QAPP) in Appendix B of the 2007 SIWP.

The following subsections present a discussion of the analytical results for each media sampled. Laboratory analytical reports are contained electronically in Appendix F. Data Validation reports are provided electronically in Appendix G.

### 6.2 SURFACE SOIL

Fifty-two surface soil samples, including two blind field duplicates, were collected from 25 locations, both on Site and off Site in May and August 2008 as part of this RI. One sample set consisting of one sample from zero inches to two inches bgs and one sample from two inches to four inches bgs was collected at each location. Analytical results are presented in Table 6.1. Refer to Figure 4.1 for sample locations.

Three of the surface soil sampling locations were on Site (locations SS-1, SS-2, and SS-11). The results from those locations were compared to the industrial RUSCO for lead, which is 3,900 mg/kg. Results for the other 22 locations were off-Site and the results from these locations were compared to the RUSCO for residential use for lead, which is 400 mg/kg. Although lead was detected in all 52 surface soil samples, there was one exceedance of the criteria observed. Lead was detected in the surface soil sample collected from the front yard of the residential property located at 127 Harrison Street (location SS-8) from the two-inch to four-inch bgs interval at a concentration of 632 mg/kg, which exceeds the residential RUSCO of 400 mg/kg. Lead was also detected in the zero-inch to two-inch sample from the same location at an estimated concentration of 364 mg/kg, which is below the RUSCO for residential use.

The surface soil samples collected from the residential property located at 103 Harrison Street (location SS-10), the former City of Buffalo School yard located at 82 Harrison Street (locations SS-17 and SS-17), two locations from the adjacent school yard at 118 Harrison Street (SS-20 and SS-24), and a vacant parcel located at 66 Lester Street (SS-25) were analyzed for TAL metals. The results from these locations were compared to the

residential RUSCOs. Although there were detections for every metal, no residential RUSCOs were exceeded.

The results of the surface soil sampling confirm that the two shallow soil sample locations identified in the 2006 SSI (BH-7 and BH-9 on Figure 3.1) are discrete localized areas of elevated concentrations of lead. The two locations are on the Site and public access to the areas where the samples were collected is restricted by the Site's perimeter fence.

### **6.3 SUBSURFACE SOIL**

Thirty-seven subsurface soil samples, including four blind field duplicates, were collected as part of this RI. Table 4.2 presents a summary of the samples and the associated analysis completed for each sample. All subsurface soils were analyzed for TCL VOCs. Twenty-four of the subsurface soil samples were also analyzed for TCL SVOCs. Fifteen samples were analyzed for TCL VOCs and SVOCs as well as lead. Nine of the samples were analyzed for an expanded parameter list which included the TCL VOCs, TCL SVOCs, as well as target analyte list (TAL) metals, cyanide, polychlorinated biphenyls (PCBs), pesticides, and herbicides. Results for samples collected from on-Site locations were compared to the Part 375 industrial RUSCOs. Results for samples collected from off-Site locations were compared to residential RUSCO. Although soil samples were collected from 20 Hayes Place and 34 Hayes Place to identify off-Site impacts, the results were compared to the Part 375 industrial RUSCOs because these two addresses are zoned as industrial, vacant land according to the Erie County Geographic Information Systems (GIS) Land Use database.

The results for the subsurface soil sampling are discussed below. Subsurface soil data are summarized and shown on Figure 6.1.

#### **6.3.1 HERBICIDES AND PESTICIDES AND POLYCHLORINATED BIPHENYLS**

Herbicides, pesticides, and PCBs were analyzed in nine of the 21 subsurface soil samples. The results are presented on Table 6.2. With the exception of 2,4,5-TP (Silvex), Part 375 does not have specific criteria to evaluate the detection of herbicides; however, no herbicides were detected in any of the samples.

A review of the pesticides data indicates that 4,4'-dichlorodiphenyldichloroethylene (DDE) and 4,4'-dichlorodiphenyltrichloroethane (DDT) were detected in the sample collected from the 0 foot- to 2 foot- interval of the soil boring associated with monitoring well MW-14 located at 103 Harrison Street. The detected concentrations (0.0046 mg/kg DDE and 0.0035 mg/kg DDT) are below the Part 375 residential RUSCOs of 1.8 mg/kg DDE and 1.7 mg/kg DDT. This address is an occupied residential property. The detections of pesticides are most likely the result of a past use of pesticides by the owner/occupant. The same two compounds were also detected in the samples collected from the 0 foot- to 2 foot-interval at soil boring SB-18-08 installed at the vacant property located at 20 Hayes Place (0.0039 mg/kg DDE and 0.0038 mg/kg DDT). Since the property at 20 Hayes Place is zoned industrial, the pesticides results were compared to and found to be less than the Part 375 industrial RUSCOs of 120 mg/kg DDE and 94 mg/kg DDT. This property is currently used as a parking area. Since pesticides were not detected in any of the on-Site soil borings, the detections of pesticides at 20 Hayes Place and 103 Harrison Street are not the result of historic Site use or operations by Buffalo China.

PCBs were detected at SB-1-07 at a concentration of 0.03 mg/kg for Aroclor 1254, which is below the Part 375 industrial RUSCO of one mg/kg for total PCBs. None of the remaining eight subsurface soil samples analyzed for PCBs had detectable concentrations. SB-1-07 is located on the north side of the former Buffalo China facility near monitoring well MW-8. Since PCBs were not detected in any other location and SB-1-07 is adjacent to CSX railroad tracks, the detection of PCBs in the soil at this location was concluded to be a historical artifact associated with past railroad activities.

### **6.3.2 METALS**

Twenty-four subsurface soil samples were analyzed either for lead only or for TAL metals (including lead) and cyanide. Metals were detected in all 24 subsurface soil samples. One exceedance of Part 375 industrial RUSCO for metals was observed for the sample collected from SB-8-07 located east of the Harrison Street Warehouse. Arsenic was detected in the soil sample from SB-8-07 at a concentration of 21.4 mg/kg, which exceeds the Part 375 industrial RUSCO of 16 mg/kg. Lead was detected in all of the samples; however, the lead concentrations were all below the applicable Part 375 RUSCOs. Metals results are presented on Table 6.3.

### 6.3.3 ORGANIC CHEMICAL COMPOUNDS

Analytical results for VOCs and SVOCs are presented on Tables 6.4 and 6.5, respectively. No VOCs were detected at concentrations exceeding applicable Part 375 RUSCOs in any of the subsurface soil samples. The primary VOC identified in the 2006 investigation was TCE at BH-5/MW-5 located near the northeast corner of the Harrison Street Warehouse. The concentration of TCE in soil at BH-5/MW-5 during the 2006 SSI was 670 mg/kg at 1.6 to 2.5 feet bgs (see Figure 3.1).

During this RI, TCE was detected at 14 soil boring locations, with concentrations ranging from 0.0017 mg/kg (estimated) to 9.7 mg/kg, all of which are all below the Part 375 industrial RUSCO for TCE of 400 mg/kg.

These 14 soil boring locations are all situated within 150 feet of BH-5/MW-5. The depths of these samples ranged from two feet to 10.4 feet bgs. Based on the shallow depth of the 2006 SSI detections, the absence of VOCs at concentrations that exceed the Part 375 industrial RUSCO, and the location of the boreholes relative to BH-5/MW-5, the TCE impacts within the overburden soil are present over a relatively small area surrounding BH-5/MW-5.

Other VOCs detected in the subsurface soil locations discussed above include cis-1,2-DCE, trans-1,2-dichloroethene (trans-1,2-DCE), 1,1-dichloroethene (1,1-DCE), ethylbenzene, toluene, vinyl chloride, and xylenes. There were no exceedances of Part 375 industrial RUSCOs for any of these compounds.

Several SVOCs were also detected in 11 of the 24 soil samples collected. Benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenze(a,h)anthracene were detected above the Part 375 industrial RUSCO at boring SB-7-07 at concentrations that marginally exceed the Part 375 industrial RUSCOs. In addition, benzo(a)pyrene was also detected above the Part 375 industrial RUSOC at boring location SB-2-07 and in the soil sample collected during installation of MW-17. All other SVOC detections were less than the Part 375 industrial RUSCOs.

### 6.4 GROUNDWATER

Thirteen overburden monitoring wells and 15 bedrock monitoring wells were installed throughout the investigation. Four rounds of groundwater monitoring were completed. Sixty-nine groundwater samples have been collected and analyzed for the RI. Analytical results were compared to the standards listed in the NYSDEC Division of Technical and

Operational Guidance Series (TOGS) 1.1.1 "Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations" (June 1998). The results of the groundwater sampling are discussed in the following sections.

#### **6.4.1 OVERBURDEN GROUNDWATER**

##### **6.4.1.1 HERBICIDES AND PESTICIDES AND POLYCHLORINATED BIPHENYLS**

As part of the RI, two monitoring wells were recommended for sampling and analysis for herbicides, pesticides, and PCBs. As a result, monitoring wells MW-4 and MW-9 were sampled and analyzed for herbicides, pesticides, and PCBs. The sample results are presented on Table 6.6. No herbicides were detected in either sample. One pesticide, alpha-BHC, was detected at monitoring well MW-4 at a concentration of 0.021 µg/L, which is slightly greater than the NYSDEC Water Quality Standard of 0.01 µg/L. However, this concentration was qualified as an estimated value, and the results for the 2008 sampling round were non-detect.

PCBs were not detected in groundwater samples collected from MW-4 and MW-9.

##### **6.4.1.2 METALS**

Analytical results for metals are presented on Table 6.7. For the RI, groundwater samples were collected in 2007 and 2008 from monitoring wells MW-4 and MW-9 and analyzed for total and dissolved TAL metals. Concentrations of total iron, magnesium, manganese, and sodium were detected in both wells at concentrations that exceeded applicable groundwater quality standards or guidance values. Although there were exceedances for these specific metals, the concentrations were considered to be consistent with regional background groundwater concentrations for these parameters.

During the 2007 sampling event, antimony was detected at a concentration exceeding the groundwater quality standard of 3.0 µg/L in both wells. However, these detections were qualified as estimated concentrations. During the 2008 sampling event, antimony was not detected at both wells.

Thallium was also detected in 2007 at a concentration exceeding the groundwater guidance value of 0.5 µg/L for monitoring well MW-4. The concentration was qualified as estimated and, similar to antimony, thallium was not detected at MW-4 in the 2008 sampling round. Thallium was not detected at MW-9 in 2007; however, in 2008 it was



detected at an estimated concentration of 3.7 µg/L, which exceeds the groundwater guidance value of 0.5 µg/L.

Concentrations of dissolved magnesium and dissolved sodium were detected in wells MW-4 and MW-9 that exceeded applicable groundwater quality standards or guidance values for the 2007 and 2008 sampling events.

Dissolved manganese was detected at MW-4 at concentrations exceeding the groundwater quality standard for both rounds of sampling. Dissolved manganese was also detected at MW-9 for both rounds; however, the concentrations were less than the groundwater quality standard.

In addition to sampling monitoring wells MW-4 and MW-9 for TAL metals, seven other overburden wells (MW-5, MW-6, MW-8, MW-10, MW-11, MW-12, and MW-17) were also sampled and analyzed for total and dissolved lead.

During the 2007 sampling event, total lead was detected in groundwater samples collected from monitoring wells MW-4, MW-8, and MW-9 at concentrations exceeding the groundwater quality standard of 25 µg/L. In 2008, total lead was either not detected or was less than the groundwater quality standard at these wells. Between August 2007 and May 2008, the groundwater sampling techniques were improved by changing from purging with a pump and sampling with a bailer to low-flow purging and sampling techniques. The use of low-flow sampling techniques greatly reduces the agitation of groundwater samples and the resuspension of sediments that may be in the bottom of the well. Based on the reduced total lead results in 2008 and dissolved lead results which were non-detect for these three wells, it was concluded that the 2007 total lead groundwater results were biased high due to suspended solids.

The dissolved lead results were non-detect for all wells sampled for both rounds of sampling completed in August 2007 and May 2008.

Cyanide was analyzed in groundwater samples collected from MW-4 and MW-9. The NYSDEC groundwater quality standard for cyanide is 200 µg/L. Cyanide was detected at MW-4 and MW-9 at concentrations ranging from 2.4J µg/L to 6.4J µg/L; however, all detections were qualified as estimated values, and were less than the groundwater quality standard.

### 6.4.1.3 ORGANIC CHEMICAL COMPOUNDS

Analytical results for VOCs in overburden groundwater are presented on Table 6.8. Figure 6.2 summarizes VOC results that exceed applicable groundwater criteria for overburden groundwater monitoring wells. The most recent and comprehensive data set for VOCs in groundwater is from the July 2009 event. Although VOC results from all rounds are presented on Table 6.8, the results discussion focuses on the July 2009 data.

The results of the RI identified a VOC contaminant plume extending from MW-5 on the south side of the Harrison Street Warehouse south to MW-22 located at 82 Harrison Street. Exceedances of the standards for organic chemical compounds in groundwater were limited to eight VOCs: TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1,2-trichloroethane, 1,2,4-trichlorobenzene, vinyl chloride, PCE, and toluene. The most frequent and consistent VOCs detected are TCE and TCE degradation compounds, most notably cis-1,2-DCE.

The TCE concentrations ranged from non-detect to 410,000 µg/L at MW-5 for the 2009 sampling event. Historically, TCE concentrations have ranged from non-detect to a high of 650,000 µg/L at MW-5. Cis-1,2-DCE concentrations range from non-detect to 310,000 µg/L at MW-5. Historically, cis-1,2-DCE concentrations have ranged from non-detect to 320,000 µg/L. Over the history of the RI, monitoring wells MW-5, MW-4, and MW-19 have exhibited the highest concentrations of these two compounds.

Consistent with the findings of the 2006 SSI groundwater sampling results, monitoring well MW-5 on the south side of the Harrison Street Warehouse had the highest concentrations of TCE and cis-1,2-DCE for all sampling rounds. Monitoring well MW-5 is considered to be within the source area for the groundwater plume. Overburden groundwater flow at the Site is to the west southwest towards and along Harrison Street. VOC concentrations in monitoring wells decrease moving away from MW-5 as shown on Figure 6.2. TCE and associated compounds were detected in wells MW-4, MW-6, MW-11, MW-12, MW-18, MW-19, MW-20, and MW-22. These wells are considered to be within the overburden groundwater plume. Figure 6.3 depicts the overburden groundwater plume based on the July 2009 TCE data.

In 2006, TCE and cis-1,2-DCE were detected at MW-8, which is located cross gradient to the east of the plume, at concentrations (31 µg/L and 8.5 µg/L respectively) above the groundwater quality standards of 5 µg/L. Subsequent sample results for both compounds were either non-detect or less than the groundwater quality criteria. TCE was also detected at MW-17 in May of 2008 at a concentration of 5.1 µg/L, which is

slightly above the groundwater quality standard of 5µg/L. Subsequent TCE results at MW-17 were less than the standard or non-detect.

There were no groundwater quality exceedances for any VOC parameters at monitoring well MW-9, which is upgradient of the plume, MW-10 which is cross gradient to the west of the plume, or MW-7, which is cross gradient to the south of the plume.

There were two SVOCs, specifically benzo(a)anthracene and benzo(b)fluoranthene that were detected in exceedance of the water quality standards. The exceedances occurred in a field duplicate groundwater sample collected from MW-4 during the 2007 sampling event. Benzo(a)anthracene and benzo(b)fluoranthene were both detected at values slightly above the guidance values of 0.002 µg/L; however, both results were qualified as estimated concentrations and the results from the 2007 original sample and the 2008 sample were non-detect. No other exceedances for SVOCs were observed in the groundwater samples. Sample results for SVOCs in overburden groundwater are presented on Table 6.9.

## **6.4.2 BEDROCK GROUNDWATER**

Based on the findings of the overburden groundwater sampling, 15 bedrock monitoring wells were installed between December 2008 and June 2009 and were sampled as part of the July 2009 sampling event. The bedrock wells were sampled for analysis of TCL VOCs. Bedrock groundwater results are presented on Table 6.10 and summarized on Figure 6.4.

### **6.4.2.1 ORGANIC CHEMICAL COMPOUNDS**

Similar to the overburden results, the bedrock sampling results indicate the presence of a contaminant plume. VOC impacts were identified at concentrations exceeding NYS groundwater standards at 8 of the 15 bedrock monitoring wells. These wells include MW-5A, MW-6A, MW-13A, MW-14A, MW-18A, MW-19A, MW-20A, and MW-21A. Eight VOCs: TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, 1,2-dichloroethane, vinyl chloride, PCE, and toluene were detected at concentrations exceeding NYS groundwater standards. The most frequent and consistent VOCs detected are TCE and TCE degradation compounds, most notably cis-1,2-DCE.

TCE was detected at monitoring wells MW-5A, MW-13A, MW-14A and MW-18A through MW-21A at concentrations ranging from 190 µg/L at MW-14A to 39,000 µg/L

at MW-13A during the July 2009 monitoring event. Cis-1,2-DCE was detected at the same wells and monitoring well MW-6A at concentrations ranging from 30 µg/L at MW-6A to 42,000 µg/L at MW-13A. Figure 6.5 depicts the bedrock groundwater plume based on the July 2009 TCE data.

## 6.5 SOIL VAPOR INTRUSION INVESTIGATION EVALUATION

The purpose of the soil vapor intrusion investigation was to evaluate the potential for risks to human health due to the presence of chlorinated VOCs in groundwater at the Site, which have the potential to impact indoor air and sub-slab soil vapor at the adjacent and downgradient properties. The sample locations were chosen based on groundwater concentrations and groundwater flow direction.

Analytical data collected during the SVI investigation were validated to demonstrate the usability of the data to support the conclusions of the RI. The sub-slab soil vapor, indoor air, and outdoor air data are presented on Table 6.11.

The NYSDOH SVI Guidance document provides general guidelines for the collection of vapor samples and for the evaluation of the resulting laboratory data. The NYSDOH guidelines focus on seven primary chemicals when evaluating the laboratory data and the application of the laboratory results of those chemicals to two decision matrices provided in the guideline. Of the seven primary chemicals, six were detected in the subsurface soils at the Site and are presented in the table below along with the corresponding NYSDOH decision matrix.

<i>Chemical</i>	<i>Soil Vapor &amp; Indoor Air Matrix</i>
• Trichloroethene	• Matrix 1
• 1,1,1-Trichloroethane	• Matrix 2
• Tetrachloroethene	• Matrix 2
• cis-1,2-Dichloroethene	• Matrix 2
• Carbon tetrachloride	• Matrix 1
• Vinyl Chloride	• Matrix 1
• 1,1-Dichloroethene	• Matrix 2

The concentrations of the above chemicals in both sub-slab soil vapor and indoor air are applied to the matrix to determine the appropriate response action. The possible response scenarios are: 1) No further action; 2) Take reasonable and practical actions to

identify source(s) and reduce exposures; 3) Monitor; 4) Mitigate; and 5) Monitor/mitigate.

SVI investigation samples were analyzed for a wide range of parameters, which included the seven chemicals listed above. The laboratory results for these chemicals were applied to the decision matrices to determine the appropriate action.

The results of the comparisons to the NYSDOH matrices are presented in the following table:

	<i>Address Along Harrison Street</i>			
	82	103	127	138
Trichloroethene	●	●	x	●
1,1,1-Trichloroethane	○	○	○	○
Tetrachloroethene	○	○	x	○
cis-1,2-Dichloroethene	○	○	x	○
Carbon tetrachloride	●	●	●	●
Vinyl Chloride	○	○	○	○
1,1-Dichloroethene	○	○	□	○

Notes:

- : No further action
- : Take reasonable and practical actions to identify source(s) and reduce exposures
- : Monitor
- : Monitor/mitigate
- x: Mitigate

Based on the evaluation of the data against the NYSDOH decision matrices, it was concluded that no further action such as monitoring or mitigation is warranted at 82, 103, and 138 Harrison Street.

However, an evaluation of the soil vapor data collected from 127 Harrison Street against the NYSDOH decision matrices indicated that mitigation is necessary to address the presence of elevated VOC vapors beneath the building’s basement sub-slab.

## 7.0 QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT

### 7.1 GENERAL

A qualitative human health exposure assessment for the former Buffalo China 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.

### 7.2 SITE CHARACTERIZATION

#### 7.2.1 SITE DESCRIPTION

A description of the Site and history is presented in Section 2.1 and Figures 1.2 and 2.1 present the Site location and layout, respectively.

Briefly, the Site is located at 51 Hayes Place in Buffalo, New York. The Site comprises approximately 10 acres and is bounded on the north by Conrail railroad tracks, on the east by the adjoining Robinson Home Products Warehouse and other commercial/industrial facilities, and on the south and west by commercial, industrial, and residential properties. Interstate Highway I-190 is located nearby to the south of the Site, while the former City of Buffalo School 26 and adjacent playground is located a few hundred feet to the southwest. The nearest water body is the Buffalo River, located approximately 1/4 to 1/2 mile south and east of the Site.

#### 7.2.2 GENERAL SITE USE

The Site includes a manufacturing building, a warehouse, outdoor storage silos, a rail spur, roadways, and parking areas. The manufacturing building is a multi-story structure covering approximately 4 acres. This building is connected to the Robinson Home Products 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 property has been used for the manufacture of china for the past 100 plus years.

### **7.2.3 PREVIOUS INVESTIGATIONS**

Previous environmental investigations conducted at the Site are discussed in Section 3.0. A brief summary of the Supplemental Site Investigation (SSI) (CRA, 2006), which is discussed in Sections 3.1 and 3.2, follows.

Seventeen soil borings were advanced and six groundwater monitoring wells (MW-4 through MW-9) were installed as part of the SSI. During the investigation, a total of 32 soil samples were collected from the 17 boring locations along with groundwater samples from three existing and six new monitoring wells. The soil samples were analyzed for VOCs, SVOCs, and lead. The groundwater samples were analyzed for VOCs, SVOCs, total lead and dissolved lead. In the 2006 SSI, analytical test results for soils were compared to the proposed Soil Cleanup Objectives (SCO) in the draft 6 NYCRR Part 375 dated November 2005. Groundwater concentrations were compared to drinking water standards and guidance values.

The SSI report documented that surface and subsurface soils contained concentrations of lead, VOCs, and SVOCs at certain sample locations 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 SSI report also documented that groundwater contained TCE, cis-1,2-DCE, and vinyl chloride at concentrations exceeding groundwater standards in the area between the former Buffalo China manufacturing building and the Harrison Street warehouse. These groundwater impacts appeared 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 was thought to extend off-Site in a southerly direction. Groundwater sampling results at MW-8, located on the northern side of the former Buffalo China manufacturing building indicated the presence of TCE and cis-1,2-DCE at concentrations exceeding groundwater standards. Lead (total) was detected at MW-8, but was not detected in the dissolved sample analysis.

### **7.2.4 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION**

As described in Sections 4.0 and 6.0, additional environmental investigation activities were conducted at the Site to future characterize chemical impacts attributable to former Buffalo China operations in on-Site and off-Site soil, groundwater, and other potentially affected media. The investigation focused on areas identified in the 2006 SSI with chemical concentrations that exceeded applicable criteria. Besides additional

characterization of potential impacts, the intent of the investigations was also to identify and evaluate necessary and appropriate remedial alternatives. A discussion of the investigation and results is presented in Sections 4.0 through 6.0. A summary is included in the following sections.

#### **7.2.4.1 SURFACE SOIL SAMPLING**

Fifty-two surface soil samples were collected at 25 locations in May 2008 and August 2008 as part of the RI to evaluate lead concentrations in on-Site and off-Site surface soils. Samples were collected at two sampling depths, 0 to 2-inches bgs and 2 to 4-inches bgs. All samples were tested for lead while samples from locations SS-10, SS-17, SS-18, SS-20, SS-24, and SS-25 were also analyzed for TAL metals. Sample results were compared to the Part 375 RUSCOs. On-Site samples were compared to RUSCOs for industrial use and off-Site samples were compared to RUSCOs for residential use unless otherwise noted. Surface soil sample locations are presented in Figure 4.1.

The maximum detected concentration of lead in on-Site samples from either the 0-2 inch or 2-4 inch depths was 2,090 mg/kg. This concentration, which was detected in the 2-4 inch samples at location SS-1, is below the industrial RUSCO for lead of 3,900 mg/kg. In addition, surface soil samples collected off-Site at 20 Hayes Place (location SS-14) and 34 Hayes Place (locations SS-12 and SS-13) were also compared to RUSCOs for industrial use because these two addresses are zoned as industrial vacant land according to the Erie County GIS Land Use database. The maximum concentration of lead detected in surface soil samples from either 20 or 34 Hayes Place was 148 mg/kg, which is below the RUSCO for industrial use of 3,900 mg/kg.

The maximum detected concentration of lead at off-Site residential or recreational locations from either the 0-2 inch or 2-4 inch depths was 632 mg/kg. This concentration was detected in the front yard at a residential property located at location SS-8 from 2 to 4 inches bgs, and it exceeds the residential RUSCO for lead of 400 mg/kg. However, the lead concentration in three of the four surface soil samples collected from the property was below the residential RUSCO for lead. The concentration of lead from either 0-2 in or 2-4 in depths in the remaining off-Site samples were all below the residential RUSCO for lead of 400 mg/kg. With the concurrence of the NYSDOH and NYSDEC, the property owners were notified of the results, and no further action is warranted or proposed with regards to off-Site surface soils.

Concentrations of remaining analytes were all below available restricted use residential RUSCOs.



#### 7.2.4.2 SUBSURFACE SOIL SAMPLING

A total of 37 subsurface soil samples, including four blind field duplicates, were collected from 33 locations both on-Site and off-Site to further characterize subsurface impacts identified during the 2006 SSI. Soil borings and subsurface soil sample collection activities were completed between July 2007 and June 2009. Subsurface sample locations are shown on Figure 4.2.

All samples were analyzed for TCL VOCs, 24 samples were analyzed for TCL SVOCs and lead, and nine samples were also analyzed for an expanded parameter list including TAL metals and cyanide, PCBs, pesticides and herbicides. Results for subsurface soil samples collected on-Site were compared to RUSCOs for industrial use as were results for samples collected from 20 Hayes Place and 34 Hayes Place. As noted previously, these latter two addresses are zoned as industrial vacant land according to the Erie County GIS Land Use database. Results for subsurface soil samples collected from 82 Harrison Street, 103 Harrison Street and 141 Milton Street were compared to RUSCOs for restricted residential use.

The maximum detected concentration of arsenic and four PAHs (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene) in on-Site subsurface soils exceeded their respective industrial RUSCO. These concentrations and locations were as follows:

<i>Constituent</i>	<i>6 NYCRR Part 375-6.8(b): Industrial RSCO (mg/kg)</i>	<i>Max. Detected Conc. (mg/kg)</i>	<i>Sample</i>	<i>Location</i>
Benzo(a)anthracene	11	15	SB-7-07	East of Harrison St. Warehouse
Benzo(a)pyrene	1.1	14	SB-7-07	East of Harrison St. Warehouse
Benzo(b)fluoranthene	11	17	SB-7-07	East of Harrison St. Warehouse
Dibenz(a,h)anthracene	1.1	2.4	SB-7-07	East of Harrison St. Warehouse
Arsenic	16	21.4	SB-8-07	East of Harrison St. Warehouse

In addition, as noted above, a subsurface soil sample was also collected from the core of MW-17, which was installed at 34 Hayes Place. Analytical test results for this sample were also compared to RUSCOs for industrial use. The maximum concentration of benzo(a)pyrene from the core of MW-17 (2.8 mg/kg) slightly exceeded the SCO for restricted industrial use of 1.1 mg/kg. However, it should be noted that 34 Hayes Place is a vacant parcel partially covered by grass and partially covered by gravel. Portions of 34 Hayes Place and the adjoining property are used as parking areas. As such, it is

likely that the exceedance is due to impacts from automobiles rather than historical plant operations. No other exceedances were noted.

With respect to off-Site subsurface soil samples collected at 82 Harrison Street, 103 Harrison Street, and 141 Milton Street, maximum detected concentrations of VOCs, SVOCs, PCBs, pesticides, herbicides and metals were all below their respective restricted use residential RUSCOs.

#### **7.2.4.3 GROUNDWATER SAMPLING**

A total of 13 new overburden and 15 bedrock groundwater monitoring wells were installed as part of the RI to evaluate groundwater conditions both on- and off-Site. Monitoring wells were installed between July 2007 and June 2009. Monitoring well locations are shown on Figure 4.3.

Analytical results were compared to the New York State groundwater standards.

With respect to on-Site monitoring wells, maximum concentrations for 12 VOCs, two SVOCs, one pesticide, and seven metals exceeded NYS groundwater standards or guidance values in either overburden wells, bedrock wells or both. The following table presents these constituents.

<i>Constituent</i>	<i>NYS Water Quality Standard or Guidance Value (µg/L)</i>	<i>Max. Detected Concentration (µg/L)</i>	<i>Monitoring Well</i>
<b><i>Volatile Organic Compounds</i></b>			
1,1,2-Trichloroethane	1	9800	<i>MW-5</i>
1,1-Dichloroethene	5	40	<i>MW-5A</i>
1,2,4-Trichlorobenzene	5	15	<i>MW-6</i>
1,2-Dichloroethane	1	320	<i>MW-5A</i>
Acetone	50	280	<i>MW-5A</i>
cis-1,2-Dichloroethene	5	320000	<i>MW-5</i>
Methylene chloride	5	240	<i>MW-5A</i>
Tetrachloroethene	5	710	<i>MW-12</i>
Toluene	5	96000	<i>MW-5</i>
trans-1,2-Dichloroethene	5	350	<i>MW-13A</i>
Trichloroethene	5	560000	<i>MW-5</i>
Vinyl chloride	2	910	<i>MW-12</i>
<b><i>Semivolatile Organic Compounds</i></b>			
Benzo(a)anthracene	0.002	0.84	<i>MW-4</i>
Benzo(b)fluoranthene	0.002	0.81	<i>MW-4</i>
<b><i>Pesticides</i></b>			
alpha-BHC	0.01	0.021	<i>MW-4</i>
<b><i>Metals</i></b>			
Antimony	3	7.50	<i>MW-9</i>
Iron	300	14300	<i>MW-9</i>
Lead	25	57	<i>MW-4</i>
Magnesium	35000	58500	<i>MW-9</i>
Manganese	300	915	<i>MW-4</i>
Sodium	20000	173000	<i>MW-4</i>
Thallium	0.5	5.0	<i>MW-4</i>
<b><i>Metals (Dissolved)</i></b>			
Antimony (Dissolved)	3	3.3	<i>MW-9</i>
Iron (Dissolved)	300	620	<i>MW-9</i>
Magnesium (Dissolved)	35000	44700	<i>MW-9</i>
Manganese (Dissolved)	300	799	<i>MW-4</i>
Sodium (Dissolved)	20000	193000	<i>MW-4</i>

It should be noted, however, that a number of these concentrations reflect estimated values, and results in subsequent sampling rounds were non-detect. These include benzo(a)anthracene, benzo(b)fluoranthene, alpha-BHC, antimony, and antimony (dissolved). As such, these analytes were not considered further in this assessment.

A total of 14 monitoring wells, eight overburden, and six bedrock were installed at off-Site locations to determine if VOC impacts were migrating off-Site. Monitoring well locations are shown on Figure 4.3. Maximum detected concentrations of cis-1,2-dichloroethene and TCE exceeded the groundwater standard of 5 µg/L for each constituent at MW-11, MW-14A, and MW-22. Maximum concentrations of both analytes were observed in MW-11 (3,500 µg/L for cis-1,2-dichloroethene and 1,700 µg/L for TCE). The concentration of TCE in MW-17 (5.1 µg/L) and MW-22 (30 µg/L) also exceeded the groundwater standard of 5.0 µg/L.

**7.2.4.4 SOIL VAPOR INTRUSION INVESTIGATION**

To investigate the potential for intrusion of vapors from subsurface sources into building structures at off-Site locations, a Soil Vapor Intrusion (SVI) investigation was completed in November 2009. The investigation was conducted in accordance with NYSDOH’s SVI Guidance.

The SVI investigation included the collection of five sub-slab soil vapor samples, five indoor air samples, and two outdoor air samples. SVI investigation sample locations are presented in Figure 4.4.

Indoor air concentrations were compared to ambient (upwind) concentrations and exceedances were compared to the soil vapor/indoor air decision matrices presented in NSDOH (2006). Currently, matrices are available for the following constituents:

<i>Volatile Chemical</i>	<i>Matrix</i>
Carbon tetrachloride	Matrix 1
1,1-Dichloroethene	Matrix 2
cis-1,2-Dichloroethene	Matrix 2
Tetrachloroethene	Matrix 2
1,1,1-Trichloroethane	Matrix 2
Trichloroethene	Matrix 1
Vinyl chloride	Matrix 1

In addition to indoor air samples, sub-slab air samples were also collected. Sub-slab samples are used to determine whether subsurface impacts are the potential source of indoor air concentrations.

Test results at one location, specifically 127 Harrison Street, identified elevated concentrations of VOCs in the sub-slab soil vapor sample and the indoor air sample. The NYSDOH decision matrices dictate that mitigation measures are necessary to address the measured VOC concentrations at 127 Harrison Street.

While the indoor air concentration of TCE exceeds the NYSDOH indoor air concentration at 103 Harrison Street, the subslab concentration is approximately two orders of magnitude lower, indicating that the subsurface is not the source of the indoor air impact. Although methylene chloride is not included in the NYSDOH decision matrices, the NYSDOH has developed an indoor air guideline concentration of 60  $\mu\text{g}/\text{m}^3$ . The indoor air concentration for methylene chloride (150  $\mu\text{g}/\text{m}^3$ ) at 103 Harrison Street exceeds this guideline. However, the subslab concentration was only 0.69  $\mu\text{g}/\text{m}^3$  indicating the subsurface was not the source of the indoor air impact. A review of the building inventory records indicates that the owner stores paint and paint-related products in the basement area which were present during the collection of indoor air sample. Therefore, although elevated VOCs were identified in the indoor air sample, but not in the sub-slab sample, it was concluded that the results were related to household items within the building and that no further action was warranted at the location.

The test results for 82 and 138 Harrison Street indicated non-detect to low-level detections of VOCs beneath the sub-slab and indoor air. The results were consistent with the VOCs detected in the ambient upwind sample. A comparison of the data for 82 and 138 Harrison Street to the NYSDOH decision matrices indicated that no further actions were warranted.

### 7.3 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 as 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 7.1, may be exposed to on-Site media:

- Trespasser (current/future)
- Industrial Worker (current/future)
- Construction Worker (future)

Impacted media at the Site include surface soil, subsurface soil, and groundwater. Air is also considered an impacted medium due to the potential release of vapors from soil and groundwater to 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.

In addition, off-Site receptors may be exposed to contaminants that have migrated. Potential receptors, which are summarized in the CSM presented in Table 7.2, include the following:

- Adult resident (current/future)
- Child resident (current/future)
- Trespasser (current/future)
- Industrial Worker (current/future)
- Construction Worker (future)

Impacted media at specific off-Site locations, i.e., 127 Harrison Street includes indoor air. Groundwater at MW-11 and MW-14A is impacted with cis-1,2-dichloroethene and TCE. Although groundwater immediately off-Site is not currently used as potable drinking water source, 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.

### **7.3.1 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 potential for 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.

Soil Cleanup Objectives (SCO) for restricted residential use and industrial use presented in the 6 NYCRR Part 375, effective December 14, 2006, were used to identify COPCs in soil. As stated in Part 375-1.1, the RUSCOs 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.

COPCs in groundwater were identified based on a comparison to Ambient Water Quality Standards and Groundwater Effluent Limitations from NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1.

In addition, COPCs in indoor air were identified based on a comparison to NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York dated October 2006.

#### On-Site Surface Soil

The on-Site surface soil screening criteria were RUSCOs for restricted industrial use from the 6 NYCRR Part 375, effective December 14, 2006 (based on the ingestion, dermal contact, and inhalation exposure pathways). There were no exceedances of RUSCOs for industrial use involving samples collected from 2007 through 2009.

#### On-Site Subsurface Soil

The on-Site subsurface soil screening criteria were RUSCOs for industrial use from 6 NYCRR Part 375 (based on the ingestion, dermal contact, and inhalation exposure pathways). As indicated in Section 7.2.4.2, maximum detected concentrations of benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene dibenz(a,h)anthracene, and arsenic exceeded RUSCOs for restricted industrial use. Samples from a total of 18 on-Site locations were analyzed for SVOCs. These maximum detections were at one location. Benzo(a)pyrene was also detected at one location on the Soil Mound and at 34 Hayes Place. All other SVOC results were below applicable criteria.

#### On-Site Soil-to-Indoor Air

Currently, no NYSDOH screening criteria are available for migration of vapors from soil-to-indoor air. However, few VOCs were detected in surface or subsurface soils. Moreover, detected concentrations were all quite low, i.e., below restricted residential use RUSCOs. Nevertheless, all detected VOCs in the vicinity of the Harrison Street Warehouse were identified as COPCs for the on-Site soil-to-indoor air pathway. These

VOCs were acetone, cis-and trans-1,2-dichloroethene, methyl ethyl ketone, tetrachloroethene, toluene, trichloroethene and vinyl chloride.

#### On-Site 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. As presented in Section 7.2.4.3, the maximum detected concentration of 27 constituents exceeded screening criteria including 12 VOCs, 2 SVOCs, one pesticide, and seven metals. As noted previously, a number of these concentrations were estimated values, and results in subsequent sampling rounds were non-detect. Included were benzo(a)anthracene, benzo(b)fluoranthene, alpha-BHC, antimony, and antimony (dissolved). As such, these analytes were not considered COPCs. The remaining 12 VOCs and six metals discussed in section 7.2.4.3 are identified as on-Site groundwater COPCs. However, since the Site groundwater is not used for potable supply this comparison to drinking water criteria is very conservative.

#### On-Site Groundwater -to-Indoor Air

Currently, no NYSDOH screening criteria are available for migration of vapors from groundwater-to-indoor air. Therefore, overburden groundwater VOCs with maximum detected concentrations that exceeded groundwater screening criteria were identified as on-Site groundwater -to-indoor air COPCs because these maximum concentrations were located in the vicinity of the Harrison Street Warehouse. These COPCs were cis- and trans-1,2-dichloroethene, tetrachloroethene, toluene, 1,2,4-trichlorobenzene, 1,1,2-trichloroethane, trichloroethene and vinyl chloride.

#### Off-Site Surface Soil

No COPCs in off-Site subsurface soils were identified because the maximum detected concentrations of VOCs, SVOCs, PCBs, pesticides, herbicides and metals were all below their respective restricted use residential RUSCOs except for lead. The maximum detected concentration of lead at off-Site residential or recreational surface soils of 632 mg/kg in one sample from 127 Harrison Street exceeded the restricted use residential SCO for lead of 400 mg/kg. However, the lead concentration in three other surface soil samples collected from 127 Harrison Street was below the restricted use residential SCO for lead. The concentration of lead from either 0-2 in or 2-4 in depths in the remaining off-Site samples were all below the restricted use residential SCO for lead of 400 mg/kg.



With the concurrence of the NYSDOH and NYSDEC, no further action is contemplated with regards to off-Site surface soils.

Thus, lead in off-Site surface soils was not identified as a COPC.

#### Off-Site Subsurface Soil

No COPCs in off-Site subsurface soils were identified because the maximum detected concentrations of VOCs, SVOCs, PCBs, pesticides, herbicides and metals were all below their respective restricted use residential RUSCOs.

#### Off-Site Groundwater

The off-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.

The maximum detected concentrations of cis-1,2-dichloroethene and TCE in off-Site monitoring wells exceeded the residential groundwater screening value of 5 µg/L for each constituent. Maximum concentrations of both analytes were observed in MW-14A and were 140 µg/L for cis-1,2-dichloroethene and 190 µg/L for TCE. The concentration of TCE in MW-17 (5.1 µg/L) and MW-22 (30 µg/L) also exceeded the groundwater standard of 5.0 µg/L. Therefore, cis-1,2-dichloroethene and TCE are considered off-Site groundwater COPCs.

#### Off-Site Indoor Air

Indoor air and subslab vapor concentrations collected at off-Site locations were evaluated according to matrices included in the NYSDOH (2006).

Test results at one location (127 Harrison Street) identified elevated concentrations of VOCs in the subslab soil vapor sample and the indoor air sample. The matrices dictate that mitigation measures are necessary to address the measured VOC concentrations at 127 Harrison Street.

### **7.3.2 EXPOSURE ASSESSMENT**

Exposure is defined as the contact of a receptor (i.e., person) with a chemical or physical agent. The exposure assessment is an estimate of the magnitude, frequency, and duration of exposure for each potential exposure route. 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
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.

### **7.3.3 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 7.2.1. 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 which 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 onto the Site.

The Site is bounded on the south and west by commercial, industrial, residential and recreational properties, on the north by Conrail railroad tracks, and on the east by the adjoining Robinson Home Products Warehouse and other commercial/industrial facilities. The current potentially exposed populations include residents, industrial workers, and persons who may trespass onto off-Site commercial/industrial properties.

## 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 populations include Site (industrial) workers, construction/utility workers, and persons who may trespass onto the Site.

It is also reasonable to assume that properties adjoining the Site will remain under the current land use for the foreseeable future. Future off-Site maintenance or construction activities may necessitate some below-grade excavation. The future potentially exposed populations include residents, industrial workers, construction/utility workers, and persons who may trespass onto off-Site commercial/industrial properties.

### **7.3.4 IDENTIFICATION OF POTENTIAL EXPOSURE PATHWAYS**

An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site<sup>1</sup>. 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.

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<sup>1</sup> 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 7.2. The remaining elements are described in the following subsections.

#### **7.3.4.1 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 exposure 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.

#### **7.3.4.1.1 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 accumulate or pool in the bottom of the excavation, therefore direct contact with groundwater by a construction/utility worker would be considered to be a complete exposure pathway both on-Site and off-Site.

COPCs present in surface soil can volatilize or adhere to soil particles and could be inhaled. Potential on-Site receptors would include a trespasser and an industrial worker, and potential off-Site receptors would include adult and child residents, a trespasser and an industrial worker.

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 soil and groundwater impacts is a potentially complete on-Site exposure pathway for the industrial worker, and off-Site for adult and child residents and industrial workers.

#### **7.3.4.2 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.

Exposure pathways for COPCs present in undisturbed soils are potentially complete, where soils are not under pavement. For construction workers, exposure pathways to COPCs in both soils and groundwater are potentially complete.

The indoor air exposure pathway for COPCs present in groundwater and soils are potentially complete where these impacts occur in close proximity to existing buildings.

The exposure pathway for ambient air inhalation of volatile chemicals from impacted groundwater is potentially complete. However, groundwater-to-ambient air exposures

are generally considered *de minimis* as volatile chemicals are significantly diluted upon release to ambient air.

#### **7.3.4.3 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 and off-Site locations, potential exposure routes associated with soil include incidental ingestion, direct dermal contact, and inhalation (airborne particulate and/or vapors). Potential exposure routes associated with groundwater include incidental ingestion, direct dermal contact, and inhalation (vapors).

#### **7.3.4.4 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, potential human exposure pathways were identified in the assessment. The potential human populations considered relevant to the assessment include the following:

On-Site: industrial workers, workers involved in general construction activities or utility excavations, and trespassers, and

Off-Site: child and adult residents, 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 7.2, the identified exposure scenarios and pathways are summarized in the Conceptual Site Model (CSM) shown in Tables 7.1 and 7.2. The CSM 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:

### On-Site Exposure Pathways:

1. On-Site Surface Soil – Current/Future Condition:
  - Dermal contact with surface soil by trespassers and industrial workers
  - Incidental ingestion of surface soil by trespassers and industrial workers
  - Inhalation of airborne particulate and vapors originating from surface soil by trespassers and industrial worker
2. On-Site Soil – Current/Future Condition:
  - Inhalation of vapors in indoor air originating from soil by industrial workers
3. On-Site Soil – Future Condition:
  - Dermal contact with soil by construction/utility workers
  - Incidental ingestion of soil by construction/utility workers
  - Inhalation of airborne particulate and vapors originating from soil by construction/utility workers
4. On-Site Groundwater – Current/Future Condition:
  - Inhalation of vapors in indoor air originating from groundwater by industrial workers
5. On-Site Groundwater – Future Condition:
  - Dermal contact with groundwater by construction/utility workers
  - Incidental ingestion of groundwater by construction/utility workers
  - Inhalation of volatile vapors by construction/utility workers

### Off-Site Exposure Pathways:

1. Off-Site Surface Soil – Current/Future Condition:
  - Dermal contact with surface soil by adult and child residents, trespassers and industrial workers
  - Incidental ingestion of surface soil by adult and child residents, trespassers and industrial workers
  - Inhalation of airborne particulate originating from surface soil by adult and child residents, trespassers and industrial workers
2. Off-Site Sub-Surface Soil – Future Condition:
  - Dermal contact with soil by construction/utility workers
  - Incidental ingestion of soil by construction/utility workers

- Inhalation of airborne particulate and vapors originating from soil by construction/utility workers
3. Off-Site Groundwater - Current/Future Condition:
- Inhalation of vapors in indoor air originating from groundwater by adult and child residents, and industrial workers
4. Off-Site Groundwater - Future Condition:
- Dermal contact with groundwater by construction/utility workers
  - Incidental ingestion of groundwater by construction/utility workers
  - Inhalation of volatile vapors by construction/utility workers

#### 7.4 SUMMARY

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

As discussed in Section 7.2, COPCs were identified by comparison of maximum detected concentrations to 6 NYCRR Part 375 restricted use criteria for soil and NYS groundwater standards for groundwater. The COPCs identified in on-Site groundwater include a number of VOCs and metals. Additional volatile compounds were flagged as COPCs for the soil-to-indoor air pathway.

No COPCs were identified in off-Site soils. The COPCs identified in off-Site groundwater include cis-1,2-dichloroethene and TCE. These two analytes were also identified as COPCs in off-Site indoor air at one location.



## 8.0 FISH AND WILDLIFE IMPACT ANALYSIS

As part of the RI, CRA completed a Fish and Wild Life Impact Analysis (FWIA). The FWIA was completed in accordance with the NYSDEC guidance document entitled "Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites (FWIA)" dated October 1994. A copy of the FWIA was presented as Appendix E to the Interim Site Investigation Report prepared by CRA dated July 8, 2008.

The objectives of the FWIA were to identify fish and wildlife resources that presently exist and that existed before contamination introduction at the Site, and to provide information for the design of a remedial investigation. The July 2008 FWIA was re-evaluated to include the data generated in late 2008 and 2009. The results of the re-evaluation are presented as an addendum to the FWIA and are provided as Appendix H to this report. To summarize, the FWIA concluded there is no impact to fish and wildlife on or near the Site due to dense urbanization and lack of natural habitats surrounding the Site. However, to be conservative CRA completed the additional relevant steps of the FWIA. Based on the results of the FWIA, it was also concluded that future remedial actions will not harm fish or wildlife and will result in the removal or isolation of Site-related contaminants, thus preventing future off-Site migration of Site-related contaminants and impacts to natural resources.

## 9.0 CONCLUSIONS AND RECOMMENDATIONS

### 9.1 NATURE AND EXTENT OF CONTAMINATION

Based on the results of the investigation and the Qualitative Human Health Exposure Assessment, the following conclusions were made:

1. Fill material ranges in thickness across the Site from less than one foot bgs to 10 feet bgs at both on and off Site locations. Not considering the artificial fill thickness measured at the soil mound locations, the fill thickness increased moving from northwest to southeast. The fill materials typically were comprised of soil, brick, and slag. The fill material is underlain by fine-grained soil, specifically, clay with silt. Borehole refusal occurred within the fine-grained soils at depths of up to approximately 19 feet bgs or less.
2. Analyte concentrations for surface soil (i.e. 0 to 2 inches bgs) samples collected from both on and off Site locations were below applicable RUSCOs.
3. Analyte concentrations for subsurface soil samples collected by EA in March 2004 identified the presence of lead at one location beneath the manufacturing facility at a concentration exceeding the industrial RUSCO.
4. Analyte concentrations for subsurface soil samples collected in 2006 identified the presence of lead, VOCs, and SVOCs at concentrations above industrial RUSCOs. These constituents were primarily found in the shallow (i.e. less than 2 feet bgs) soil/fill material. The concentrations of these constituents were considerably less in the underlying sample intervals.
5. Analyte concentrations for subsurface soil samples collected from July 2007 to June 2009 identified the presence of SVOCs and arsenic at two on-Site locations at concentrations that exceed the industrial RUSCOs.
6. Groundwater was present within monitoring wells that were installed within the fill/clay unit and in the upper bedrock unit. The depth to groundwater varied from approximately 1.77 feet to 10 feet bgs in overburden wells and from approximately 2.86 feet to 15.12 feet bgs in the bedrock wells. Water level data indicates that the groundwater hydraulic gradient in both the overburden and bedrock groundwater zones is to the west-southwest. The fine-grained soil conditions present an impediment to overburden groundwater flow horizontally.
7. Analytical data for groundwater samples identified the presence of VOCs at both on-Site and off-Site monitoring wells. The most frequently detected VOCs were TCE and cis-1,2-DCE. The greatest VOC concentrations were detected in the presumed source area at on Site monitoring wells MW-5 and MW-5A.

8. VOCs were either not detected at or were detected at concentrations below the NYS groundwater standards at up gradient wells MW-9 and MW-9A, cross gradient wells MW-7 and MW-7A, MW-10 and MW-25A and down gradient wells, MW-15A, MW-22A, and MW-23A. These locations are considered the limits of the VOC groundwater plume.
9. The qualitative exposure assessment identified media and potential human exposure to soil through dermal contact, incidental ingestion, and inhalation of particulate and vapors, and groundwater through dermal contact, incidental ingestion, and inhalation of vapors. The potentially exposed on-Site receptors include workers (industrial workers and construction/utility workers) and persons that may trespass onto the Site. The potentially exposed off-Site receptors include adult and child residents, workers (industrial workers and construction/utility workers) and persons that may trespass onto off-Site commercial/industrial properties. Potential human exposure can be addressed using remedial or other methods to eliminate exposure pathways and/or provide worker protection. COPCs were identified by comparison of maximum detected concentrations to 6 NYCRR Part 375 restricted use criteria for soil and NYS groundwater standards for groundwater. The COPCs identified in on-Site groundwater include a number of VOCs and metals. However, since the Site groundwater is not used for potable supply, this comparison to drinking water criteria is very conservative.
10. Additional volatile compounds were flagged as COPCs for the soil-to-indoor air pathway.
11. No COPCs were identified in off-Site soils. The COPCs identified in off-Site groundwater include cis-1,2-DCE and TCE. These two analytes were also identified as COPCs in on-Site groundwater and in off-Site indoor air at one location.

## 9.2 INTERIM REMEDIAL MEASURES

The results of the RI identified the presence of VOCs in the on-Site and off-Site overburden and bedrock groundwater at concentrations that exceed the NYS Groundwater Standards. VOCs were also detected in off-Site soil vapor samples at levels that, based on the NYSDOH Soil Vapor Intrusion Guidance, require mitigation.

Based on these findings, it is recommended that an Interim Remedial Measure (IRM) be implemented to address the soil vapor intrusion at the affected off-Site property. Based on a comparison of the results of the soil vapor sampling at 127 Harrison Street to the decision matrices in the NYSDOH Guidance document, mitigation is required to address potential exposures to VOCs in indoor air resulting from soil vapor intrusion. Buffalo China has contacted the property owner/resident to request permission and access to

conduct an IRM at this residence. As of the date of this report, the owner/resident had denied access.

Once access is granted, the building structure will be accessed and an appropriate mitigation plan will be developed. The mitigation plan will be submitted to NYSDEC and NYSDOH for approval. Once the approved mitigation plan is implemented it is expected to be the final remedy to address soil vapor intrusion at this off-Site property.

### **9.3 ALTERNATIVES ANALYSIS REPORT**

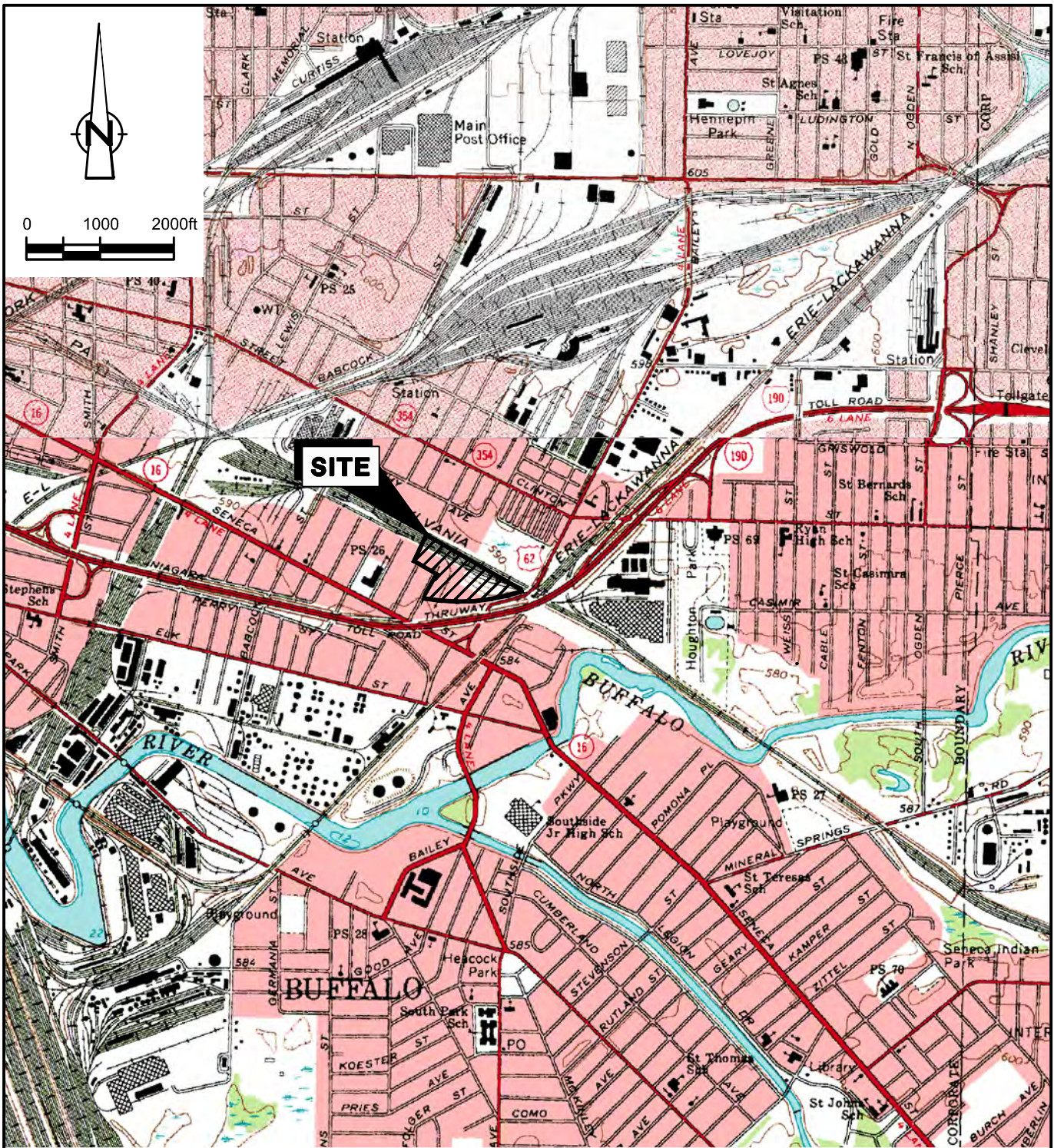
An Alternatives Analysis Report (AAR) is being prepared to scope and formulate remedial alternatives to address the presence of lead, arsenic, SVOCs, and VOCs in on-Site soils and the presence of VOCs in both on and off Site groundwater. The AAR will evaluate applicable remedial alternatives in order to select the most appropriate remedial alternatives.

## 10.0 REFERENCES

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- Environmental Audits, Inc., Focused Phase II Environmental Assessment: Industrial Property, 51 Hayes Place Buffalo, New York, March 2004.
- Conestoga-Rovers & Associates, Inc., Supplemental Site Investigation Report and Qualitative Human Health Exposure Assessment, Niagara Ceramics 51 Hayes Place, Buffalo, New York, June 2006.
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- 6 NYCRR Part 701, "Classifications-Surface Waters and Groundwaters."
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- USEPA, 2008. Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Compendium of Tier 2 Values for Nonionic Organics. EPA-600-R-02-016. Office of Research and Development. Washington, DC 20460.
- LaSala, A.M., 1968. "Groundwater Resources of the Erie-Niagara Basin, New York," State of New York Conservation Department Water Resources Commission Basin Planning Report ENB-3.

## FIGURES





**REFERENCE:**

UNITED STATES GEOLOGIC SURVEY BUFFALO NE, BUFFALO SE QUADRANGLE, NY  
 TOPOGRAPHIC, 7.5 MINUTES SERIES 1965  
 SCALE: 1:24,000

figure 1.1  
**SITE LOCATION MAP**  
**REMEDIAL INVESTIGATION**  
**FORMER BUFFALO CHINA SITE (NO. C915209)**  
*Buffalo, New York*





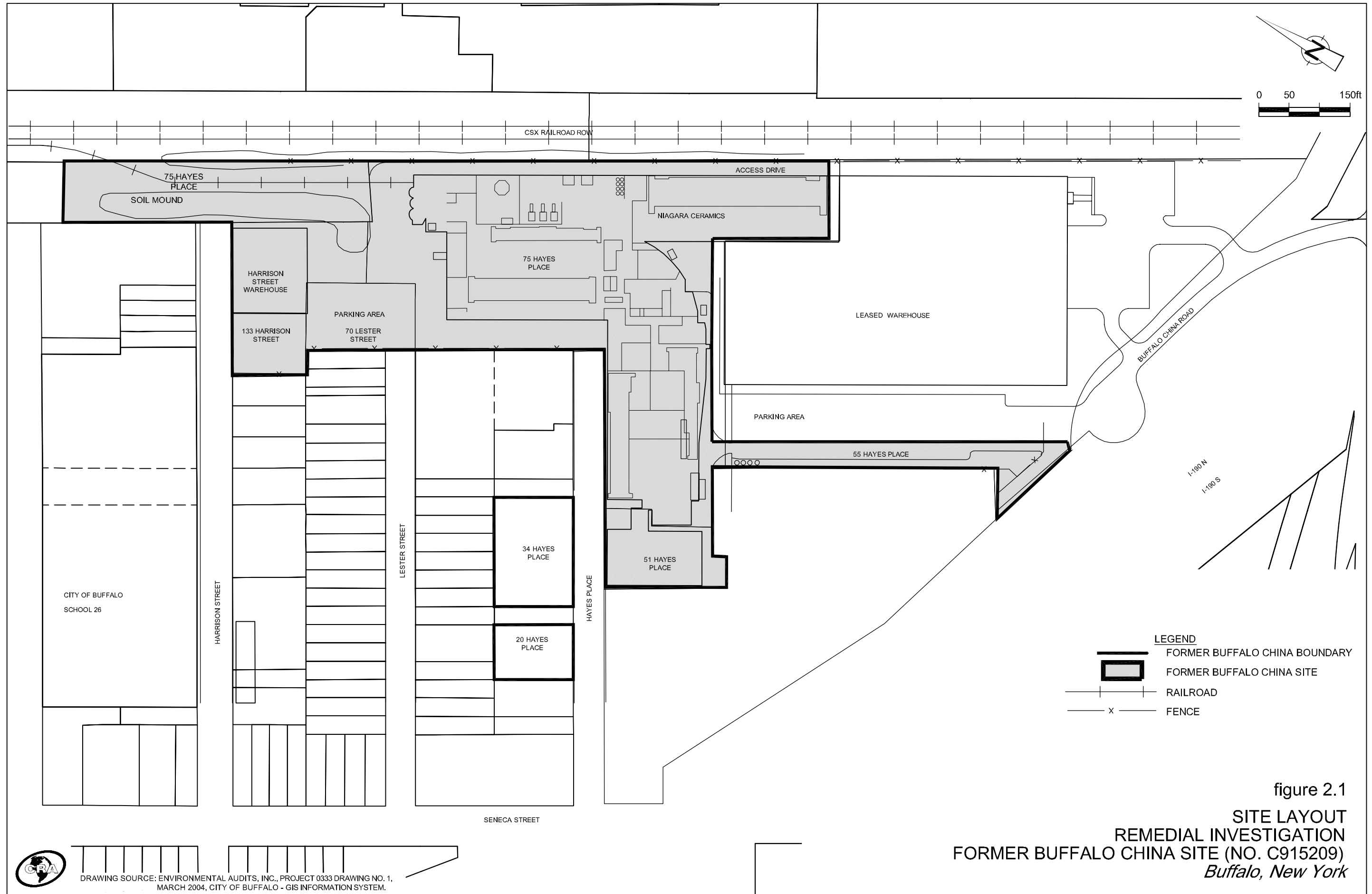
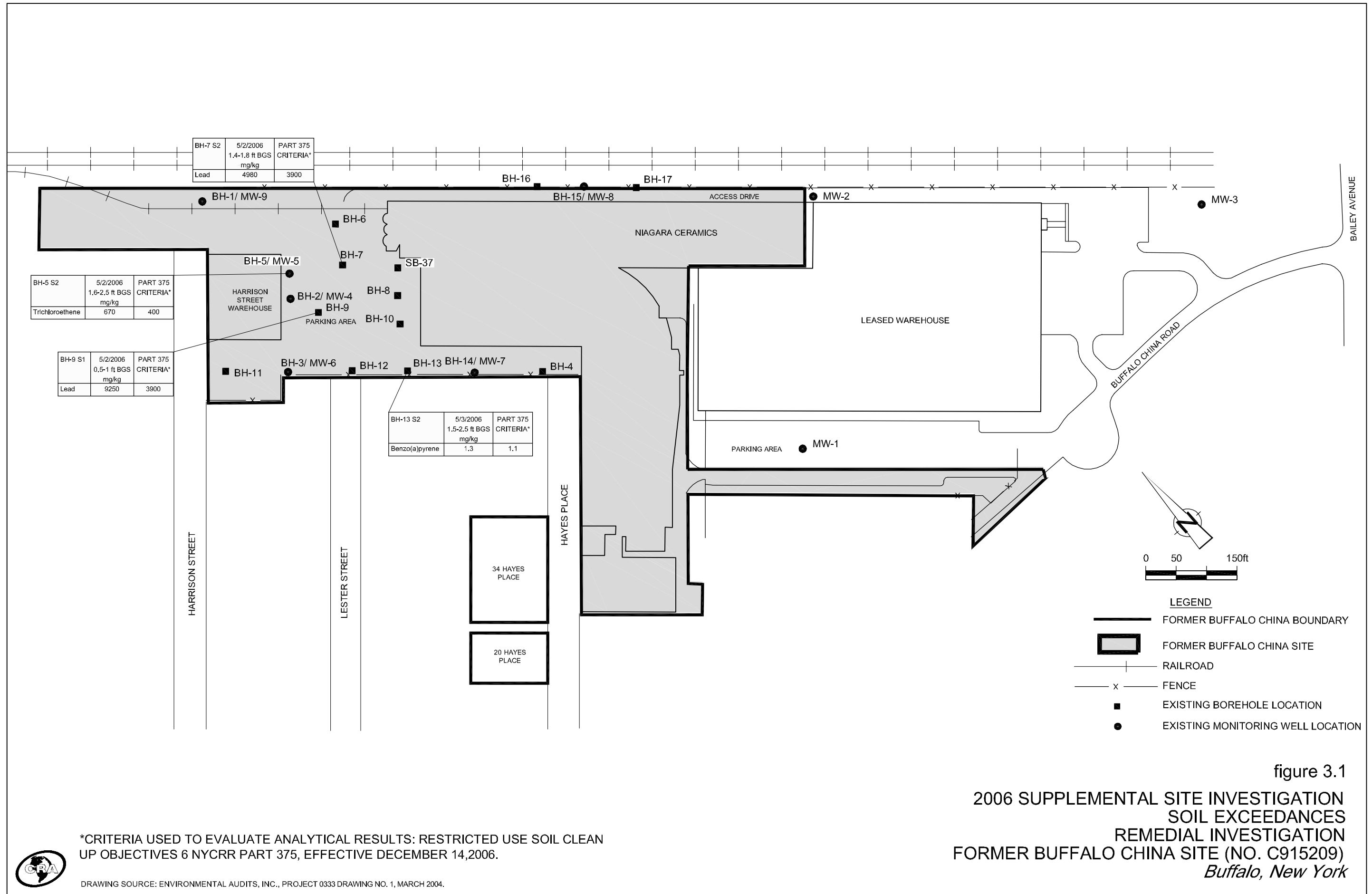


figure 2.1  
 SITE LAYOUT  
 REMEDIAL INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 Buffalo, New York





\*CRITERIA USED TO EVALUATE ANALYTICAL RESULTS: RESTRICTED USE SOIL CLEAN UP OBJECTIVES 6 NYCRR PART 375, EFFECTIVE DECEMBER 14, 2006.

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



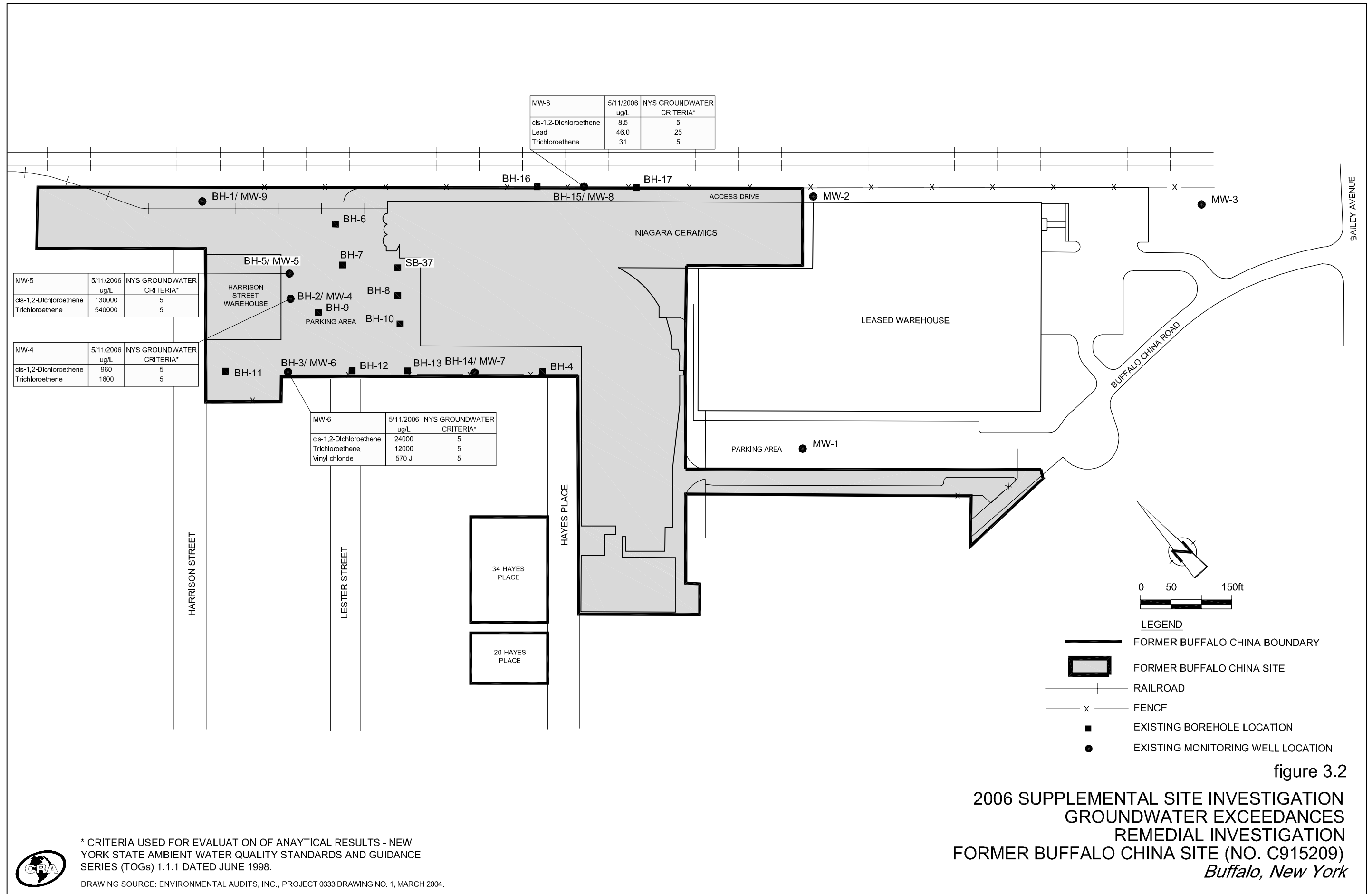


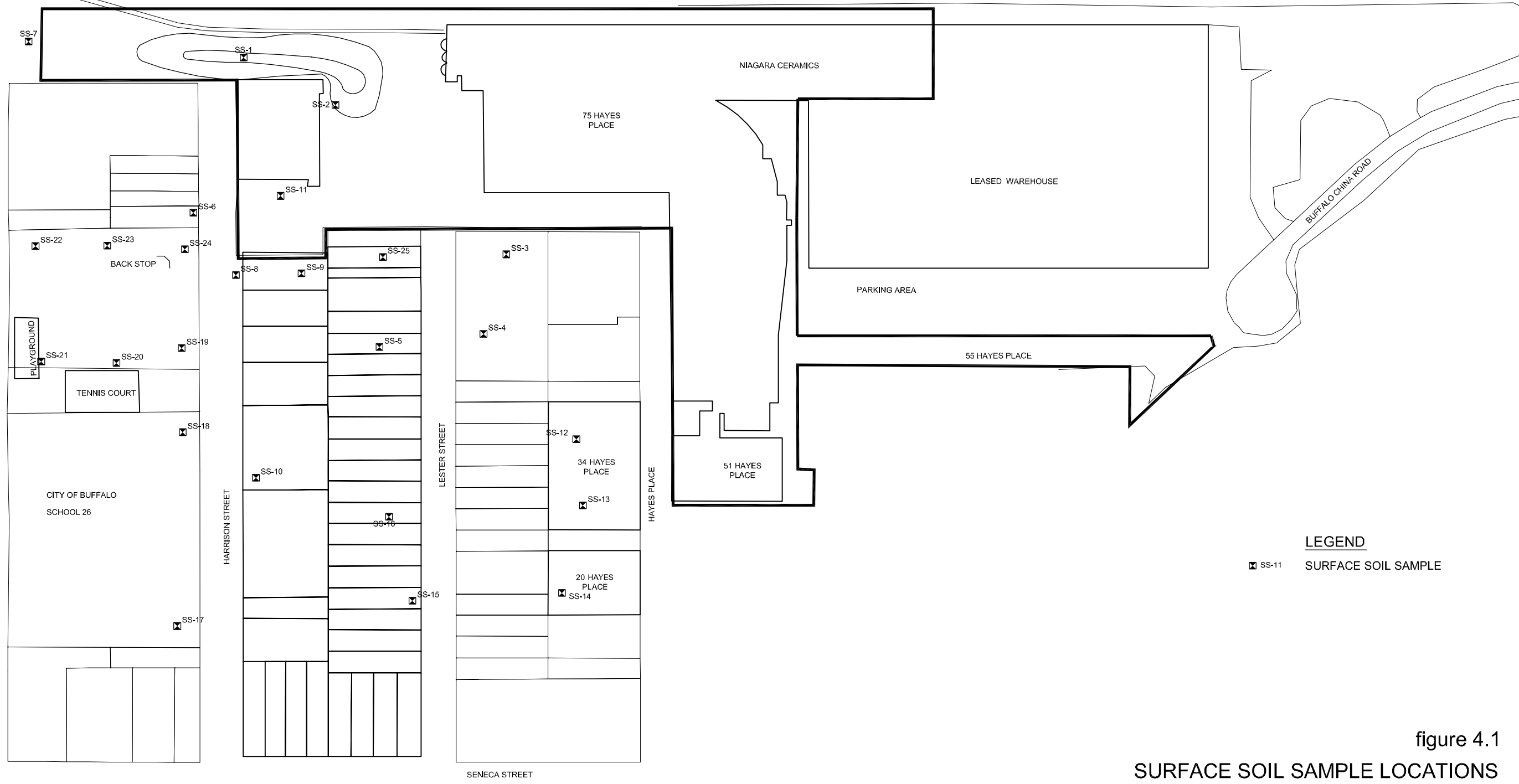
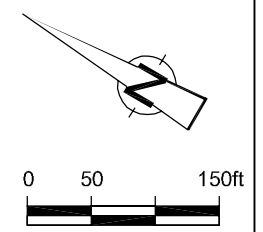
figure 3.2

2006 SUPPLEMENTAL SITE INVESTIGATION  
 GROUNDWATER EXCEEDANCES  
 REMEDIAL INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
*Buffalo, New York*

\* CRITERIA USED FOR EVALUATION OF ANALYTICAL RESULTS - NEW YORK STATE AMBIENT WATER QUALITY STANDARDS AND GUIDANCE SERIES (TOGs) 1.1.1 DATED JUNE 1998.

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

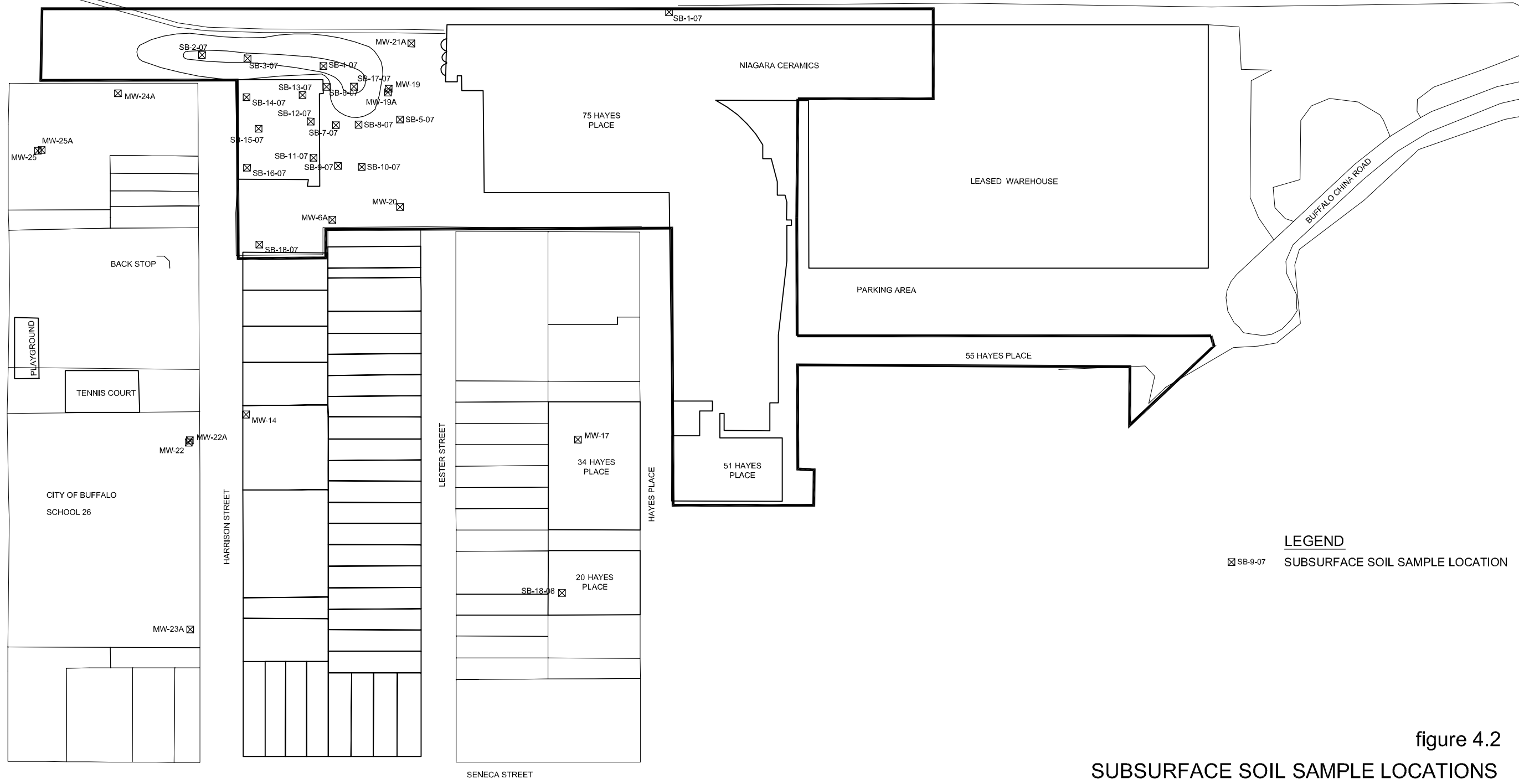
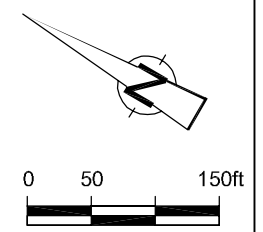




**LEGEND**  
 X SS-11 SURFACE SOIL SAMPLE

figure 4.1  
 SURFACE SOIL SAMPLE LOCATIONS  
 REMEDIAL INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 Buffalo, New York



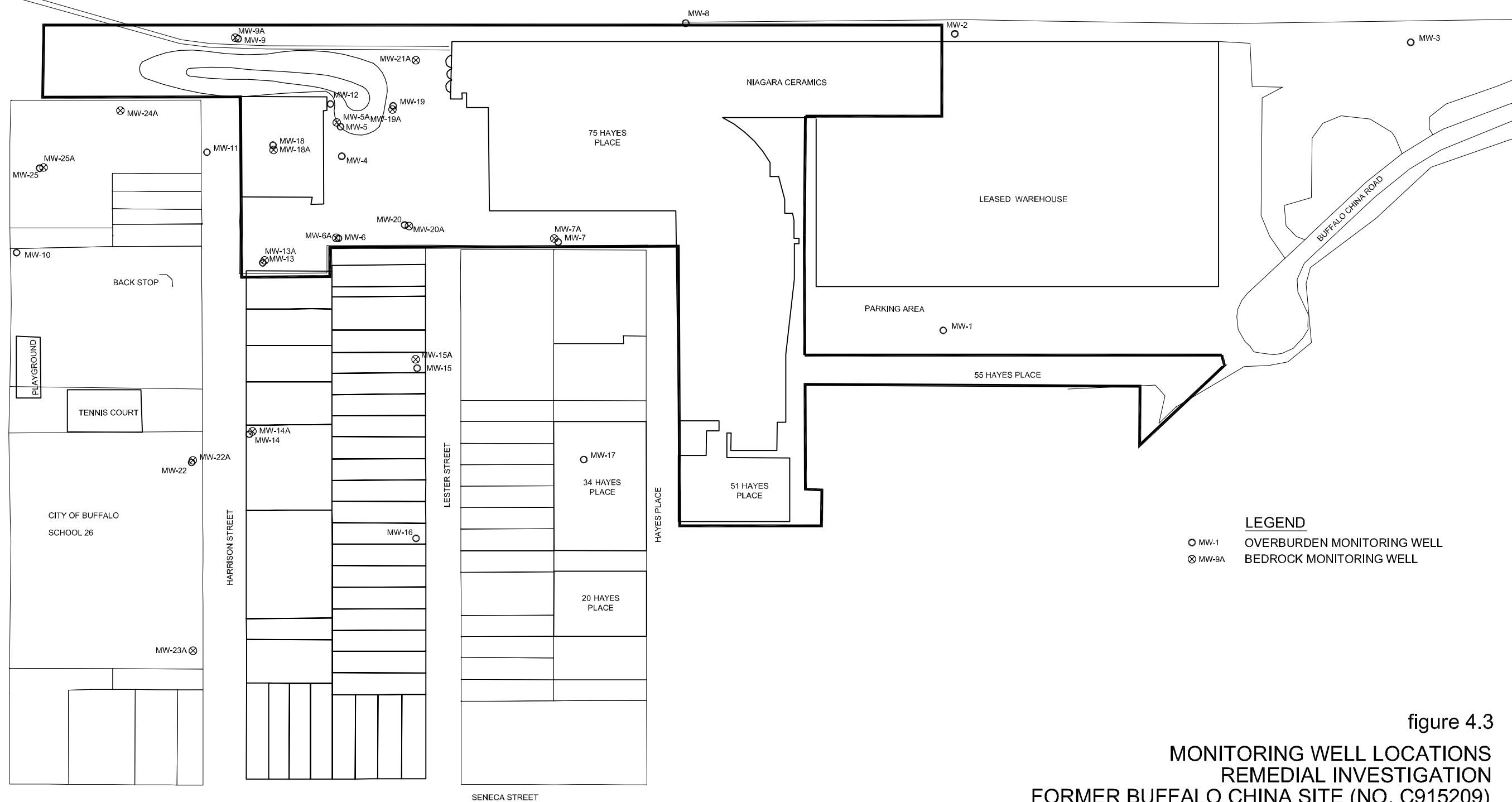
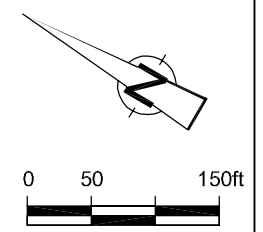


**LEGEND**  
 ☒ SB-9-07 SUBSURFACE SOIL SAMPLE LOCATION

figure 4.2  
 SUBSURFACE SOIL SAMPLE LOCATIONS  
 REMEDIAL INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 Buffalo, New York

SOIL CRITERIA USED FOR EVALUATION OF ANALYTICAL RESULTS - 6 NYCRR  
 PART 375 RESTRICTED USE SOIL CLEANUP OBJECTIVES - PROTECTION OF  
 PUBLIC HEALTH. INDUSTRIAL CRITERIA USED FOR ON-SITE LOCATIONS.  
 RESIDENTIAL CRITERIA USED FOR OFF-SITE LOCATIONS.

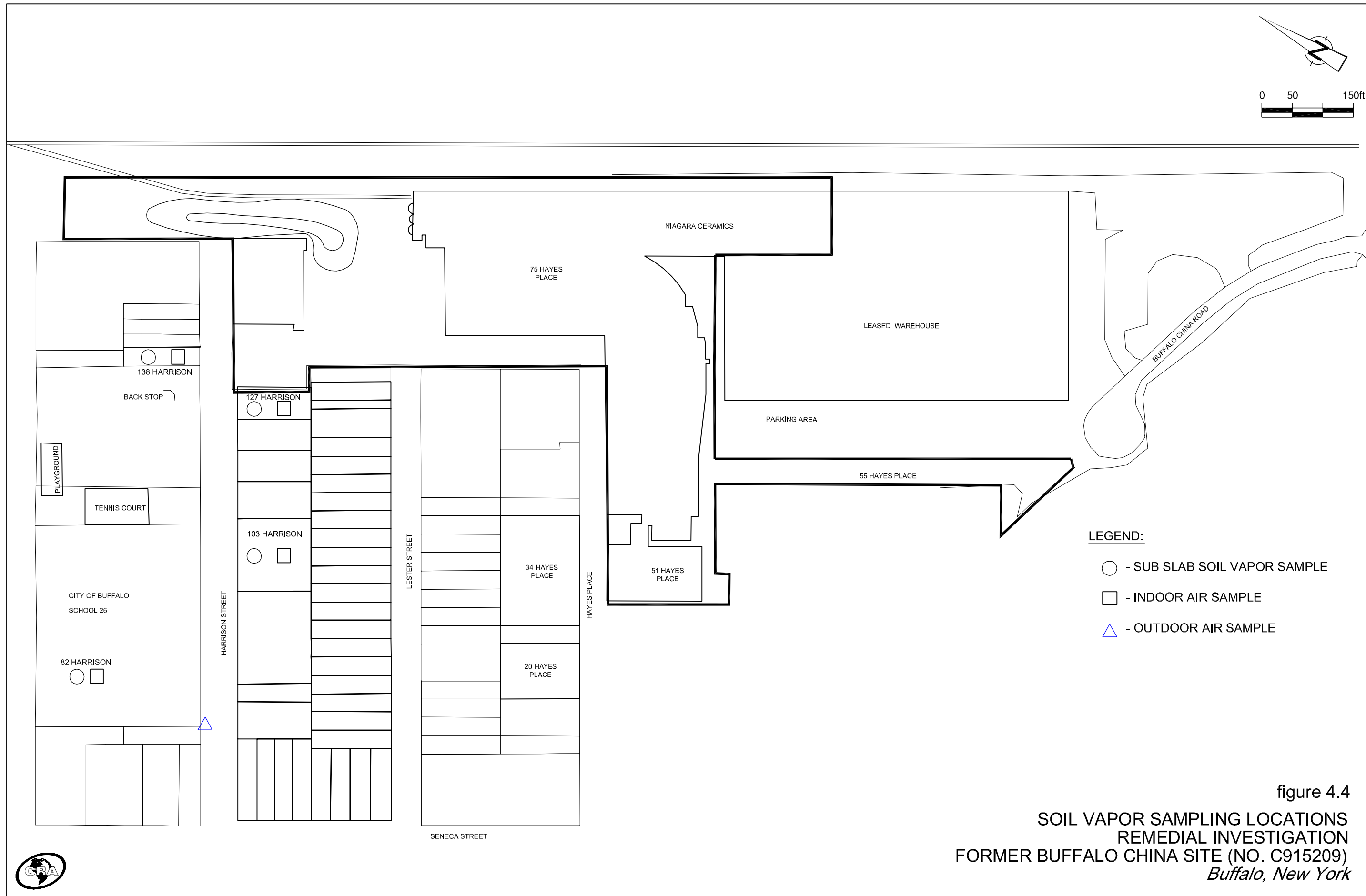
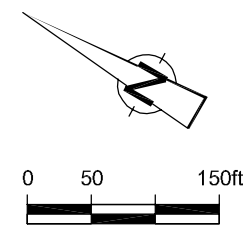




**LEGEND**  
 ○ MW-1 OVERBURDEN MONITORING WELL  
 ⊗ MW-9A BEDROCK MONITORING WELL

figure 4.3  
 MONITORING WELL LOCATIONS  
 REMEDIAL INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 Buffalo, New York





**LEGEND:**  
 ○ - SUB SLAB SOIL VAPOR SAMPLE  
 □ - INDOOR AIR SAMPLE  
 △ - OUTDOOR AIR SAMPLE

figure 4.4  
 SOIL VAPOR SAMPLING LOCATIONS  
 REMEDIAL INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 Buffalo, New York



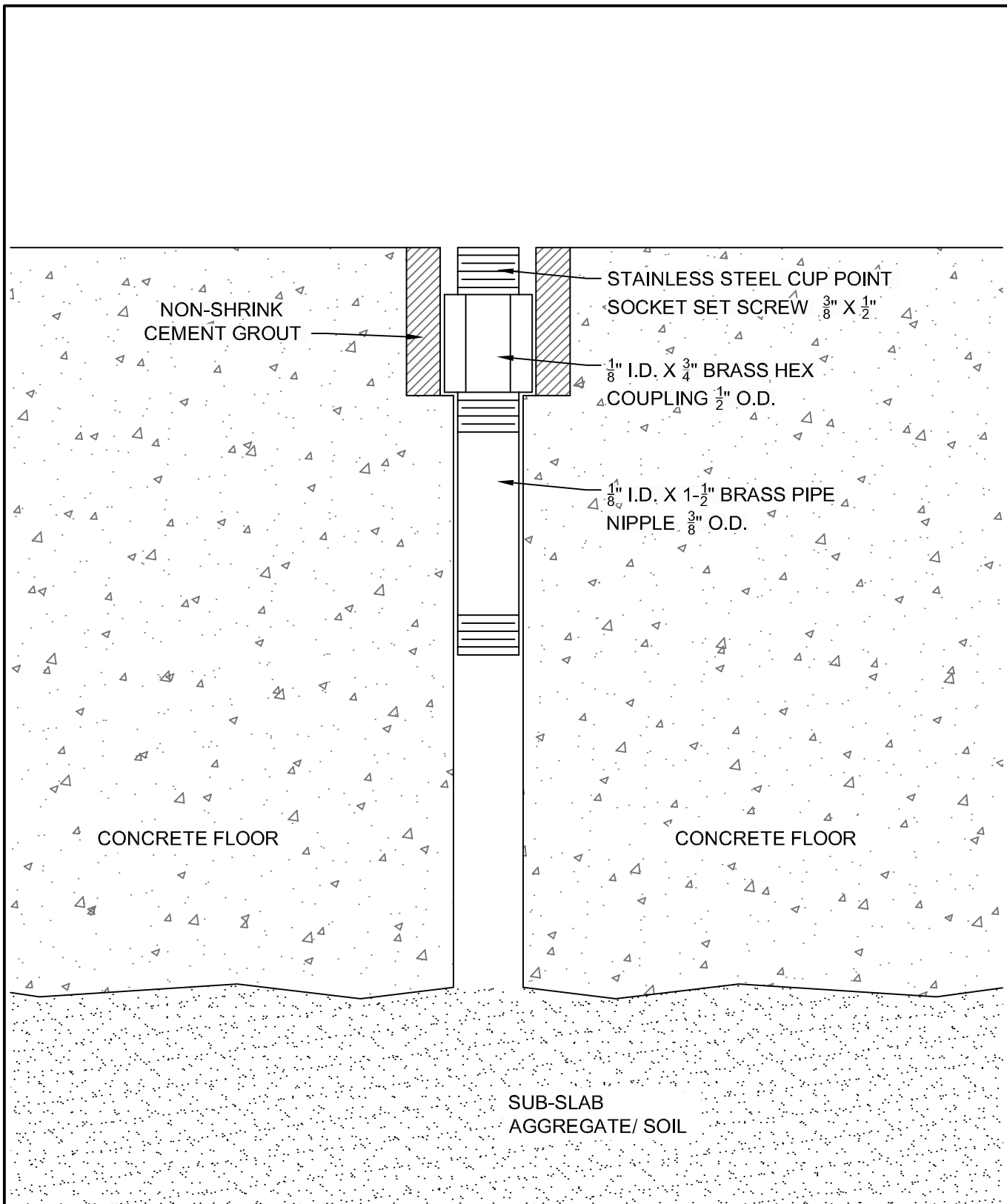


figure 4.5

TYPICAL SUB-SLAB SOIL VAPOR PROBE INSTALLATION  
 REMEDIAL INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 Buffalo, New York



NOT TO SCALE



figure 4.6

SOIL VAPOR INTRUSION CANISTER SET-UP  
REMEDIAL INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
*Buffalo, New York*





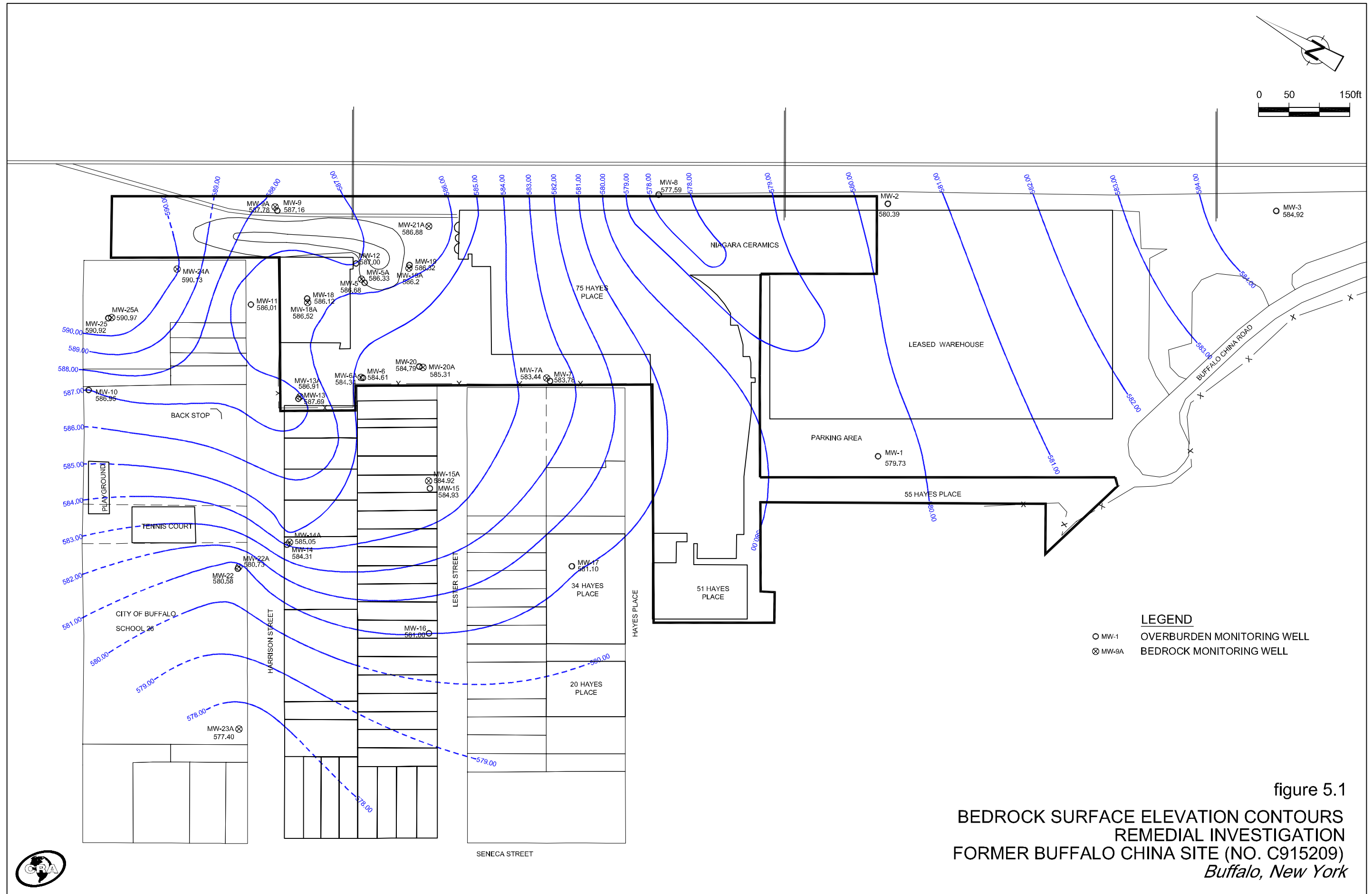
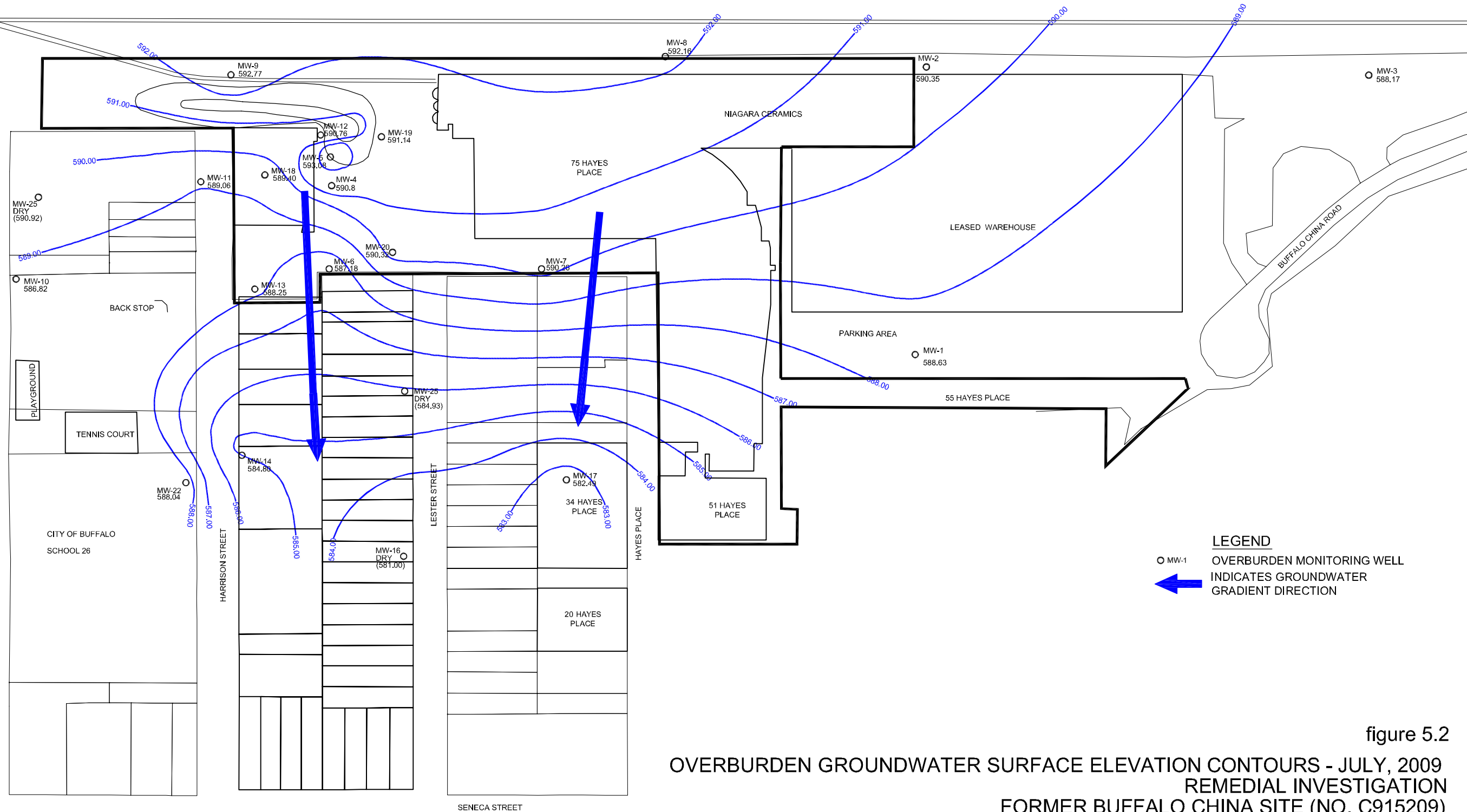
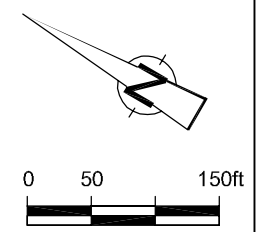


figure 5.1  
 BEDROCK SURFACE ELEVATION CONTOURS  
 REMEDIAL INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 Buffalo, New York



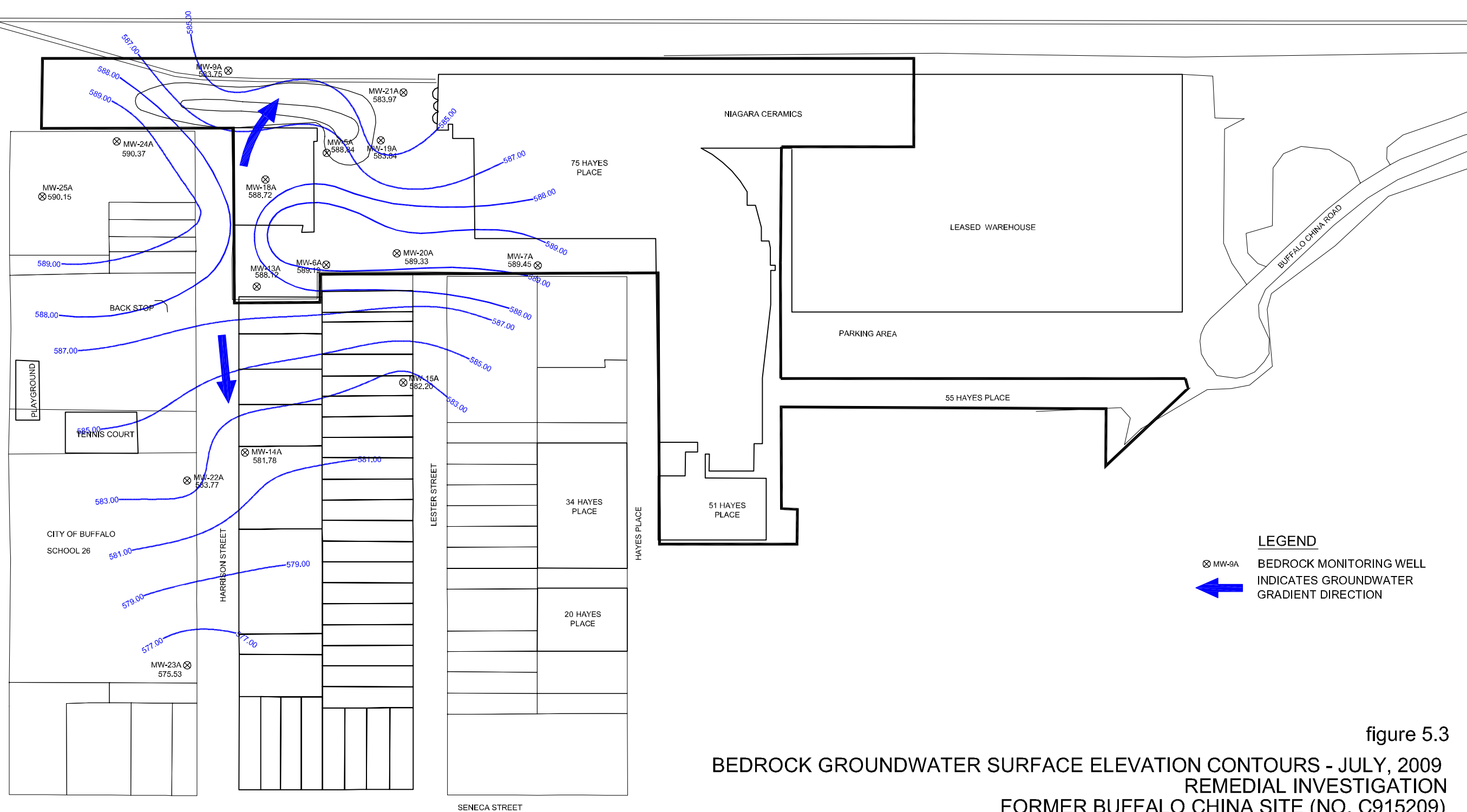
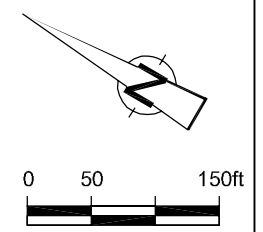


**LEGEND**  
 ○ MW-1 OVERBURDEN MONITORING WELL  
 ← INDICATES GROUNDWATER GRADIENT DIRECTION

NOTE: (581.00) - INDICATES ELEVATION CORRESPONDING TO THE BOTTOM OF THE WELL.

figure 5.2  
 OVERBURDEN GROUNDWATER SURFACE ELEVATION CONTOURS - JULY, 2009  
 REMEDIAL INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 Buffalo, New York





**LEGEND**  
 ⊗ MW-9A BEDROCK MONITORING WELL  
 ← INDICATES GROUNDWATER GRADIENT DIRECTION

figure 5.3  
 BEDROCK GROUNDWATER SURFACE ELEVATION CONTOURS - JULY, 2009  
 REMEDIAL INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 Buffalo, New York

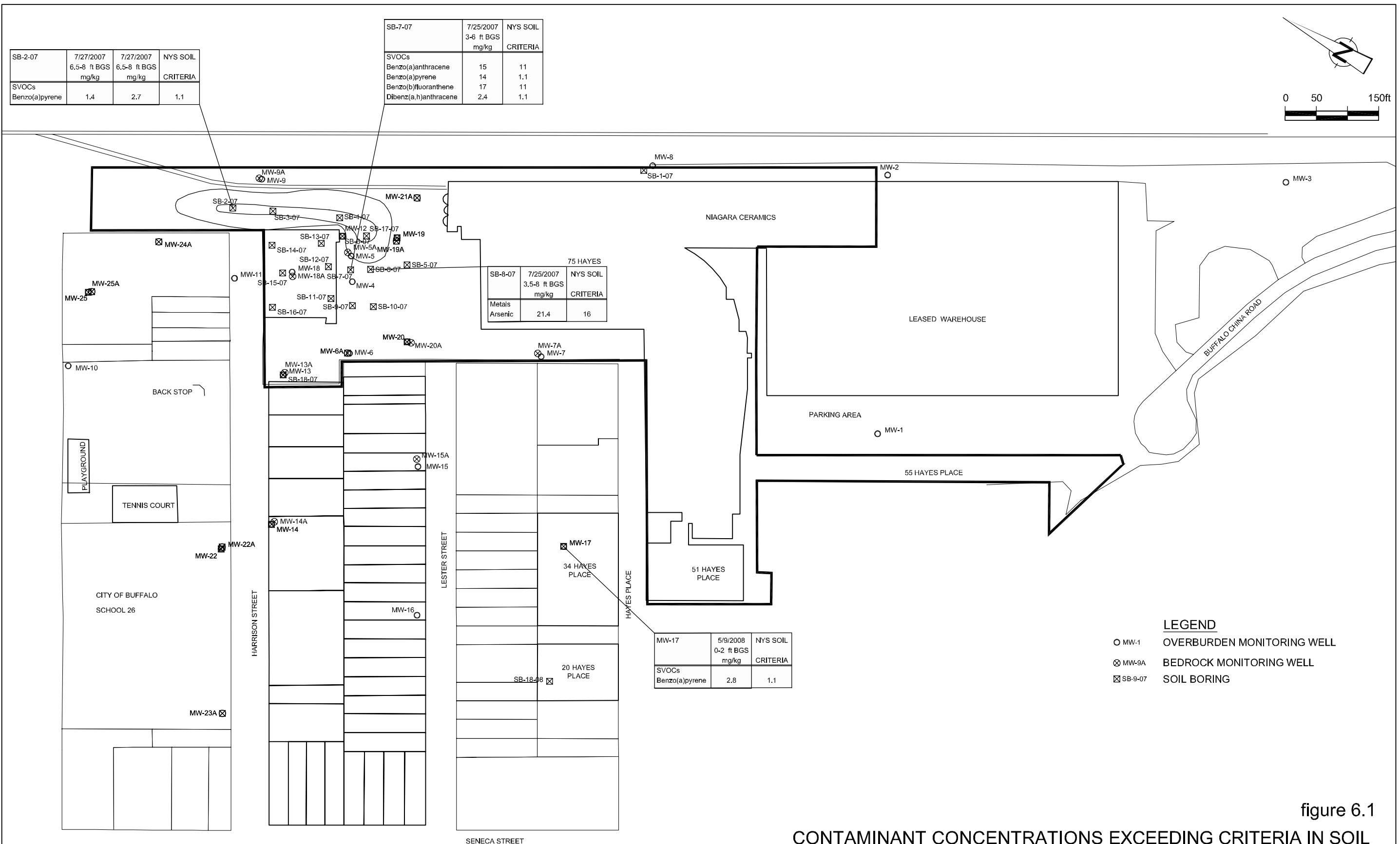
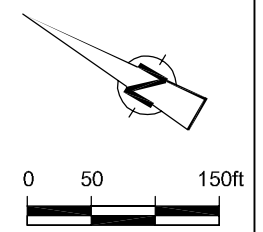


SB-2-07	7/27/2007 6.5-8 ft BGS mg/kg	7/27/2007 6.5-8 ft BGS mg/kg	NYS SOIL CRITERIA
SVOCs			
Benzo(a)pyrene	1.4	2.7	1.1

SB-7-07	7/25/2007 3-6 ft BGS mg/kg	NYS SOIL CRITERIA
SVOCs		
Benzo(a)anthracene	15	11
Benzo(a)pyrene	14	1.1
Benzo(b)fluoranthene	17	11
Dibenz(a,h)anthracene	2.4	1.1

SB-8-07	7/25/2007 3.5-8 ft BGS mg/kg	NYS SOIL CRITERIA
Metals		
Arsenic	21.4	16

MW-17	5/9/2008 0-2 ft BGS mg/kg	NYS SOIL CRITERIA
SVOCs		
Benzo(a)pyrene	2.8	1.1

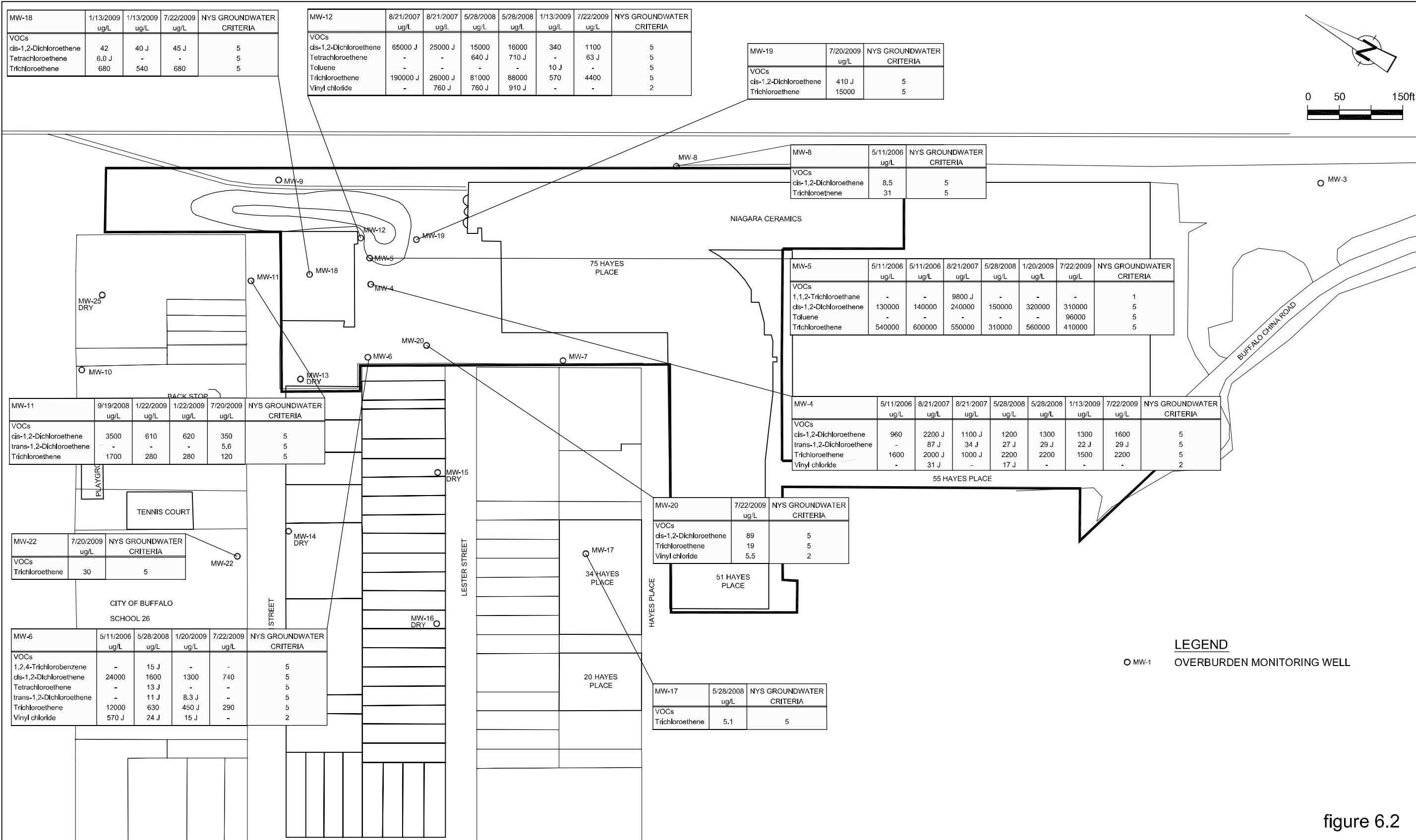


- LEGEND**
- MW-1 OVERBURDEN MONITORING WELL
  - ⊗ MW-9A BEDROCK MONITORING WELL
  - ⊠ SB-9-07 SOIL BORING

figure 6.1  
 CONTAMINANT CONCENTRATIONS EXCEEDING CRITERIA IN SOIL  
 REMEDIAL INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 Buffalo, New York

SOIL CRITERIA USED FOR EVALUATION OF ANALYTICAL RESULTS - 6 NYCRR  
 PART 375 RESTRICTED USE SOIL CLEANUP OBJECTIVES - PROTECTION OF  
 PUBLIC HEALTH. INDUSTRIAL CRITERIA USED FOR ON-SITE LOCATIONS.  
 RESIDENTIAL CRITERIA USED FOR OFF-SITE LOCATIONS.





MW-18	1/13/2009 ug/L	1/13/2009 ug/L	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs				
cis-1,2-Dichloroethene	42	40 J	45 J	5
Tetrachloroethene	6.0 J	-	-	5
Trichloroethene	680	540	680	5

MW-12	8/21/2007 ug/L	8/21/2007 ug/L	5/28/2008 ug/L	5/28/2008 ug/L	1/13/2009 ug/L	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs							
cis-1,2-Dichloroethene	65000 J	25000 J	15000	16000	340	1100	5
Tetrachloroethene	-	-	640 J	710 J	-	63 J	5
Toluene	-	-	-	-	10 J	-	5
Trichloroethene	190000 J	26000 J	81000	88000	570	4400	5
Vinyl chloride	-	760 J	760 J	910 J	-	-	2

MW-19	7/20/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs		
cis-1,2-Dichloroethene	410 J	5
Trichloroethene	15000	5

MW-8	5/11/2006 ug/L	NYS GROUNDWATER CRITERIA
VOCs		
cis-1,2-Dichloroethene	8.5	5
Trichloroethene	31	5

MW-5	5/11/2006 ug/L	5/11/2006 ug/L	8/21/2007 ug/L	5/28/2008 ug/L	1/20/2009 ug/L	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs							
1,1,2-Trichloroethane	-	-	9800 J	-	-	-	1
cis-1,2-Dichloroethene	130000	140000	240000	150000	320000	310000	5
Toluene	-	-	-	-	-	96000	5
Trichloroethene	540000	600000	550000	310000	560000	410000	5

MW-4	5/11/2006 ug/L	8/21/2007 ug/L	8/21/2007 ug/L	5/28/2008 ug/L	5/28/2008 ug/L	1/13/2009 ug/L	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs								
cis-1,2-Dichloroethene	960	2200 J	1100 J	1200	1300	1300	1600	5
trans-1,2-Dichloroethene	-	87 J	34 J	27 J	29 J	22 J	29 J	5
Trichloroethene	1600	2000 J	1000 J	2200	2200	1500	2200	5
Vinyl chloride	-	31 J	-	17 J	-	-	-	2

MW-11	9/19/2008 ug/L	1/22/2009 ug/L	1/22/2009 ug/L	7/20/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs					
cis-1,2-Dichloroethene	3500	610	620	350	5
trans-1,2-Dichloroethene	-	-	-	5.6	5
Trichloroethene	1700	280	280	120	5

MW-20	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs		
cis-1,2-Dichloroethene	89	5
Trichloroethene	19	5
Vinyl chloride	5.5	2

MW-22	7/20/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs		
Trichloroethene	30	5

MW-6	5/11/2006 ug/L	5/28/2008 ug/L	1/20/2009 ug/L	7/22/2009 ug/L	NYS GROUNDWATER CRITERIA
VOCs					
1,2,4-Trichlorobenzene	-	15 J	-	-	5
cis-1,2-Dichloroethene	24000	1600	1300	740	5
Tetrachloroethene	-	13 J	-	-	5
trans-1,2-Dichloroethene	-	11 J	8.3 J	-	5
Trichloroethene	12000	630	450 J	290	5
Vinyl chloride	570 J	24 J	15 J	-	2

MW-17	5/28/2008 ug/L	NYS GROUNDWATER CRITERIA
VOCs		
Trichloroethene	5.1	5

**LEGEND**  
 ○ MW-1 OVERBURDEN MONITORING WELL

GROUNDWATER CRITERIA USED FOR EVALUATION OF ANALYTICAL RESULTS - NYSDEC TOGS 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES AND GROUNDWATER EFFLUENT LIMITATIONS JUNE 1998, JANUARY 1999 ERRATA SHEET, APRIL 2000 ADDENDUM, JUNE 2004 ADDENDUM.

**CONTAMINANT CONCENTRATIONS EXCEEDING CRITERIA IN OVERBURDEN GROUNDWATER REMEDIAL INVESTIGATION FORMER BUFFALO CHINA SITE (NO. C915209) Buffalo, New York**



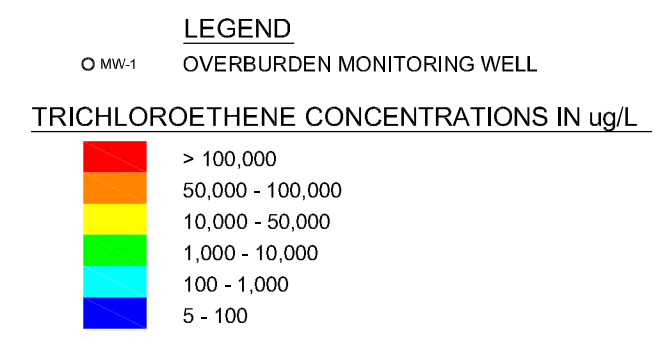
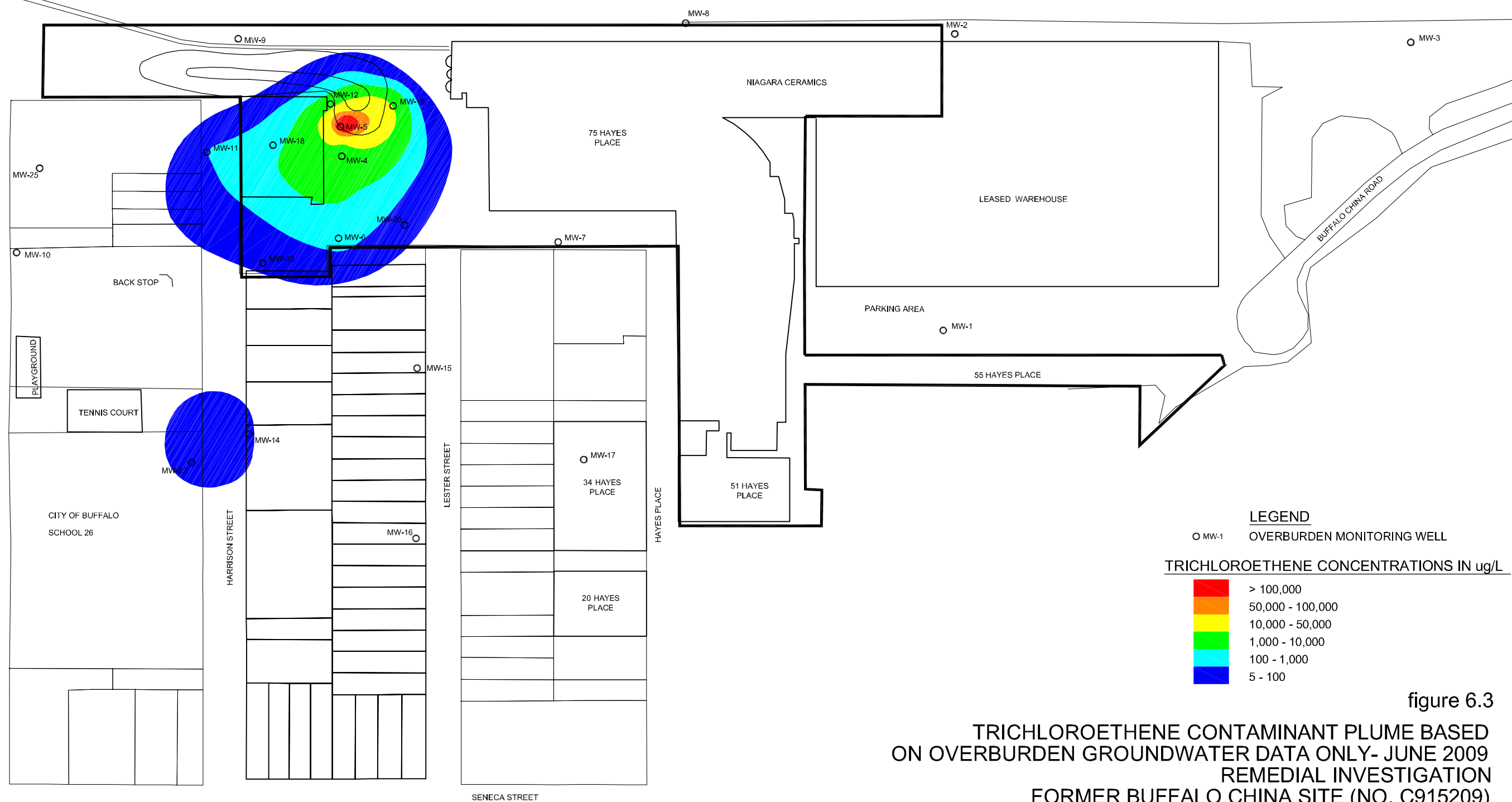
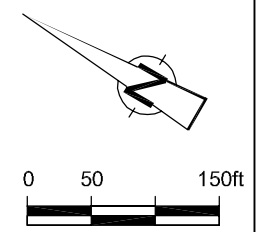


figure 6.3  
 TRICHLOROETHENE CONTAMINANT PLUME BASED  
 ON OVERBURDEN GROUNDWATER DATA ONLY- JUNE 2009  
 REMEDIAL INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 Buffalo, New York



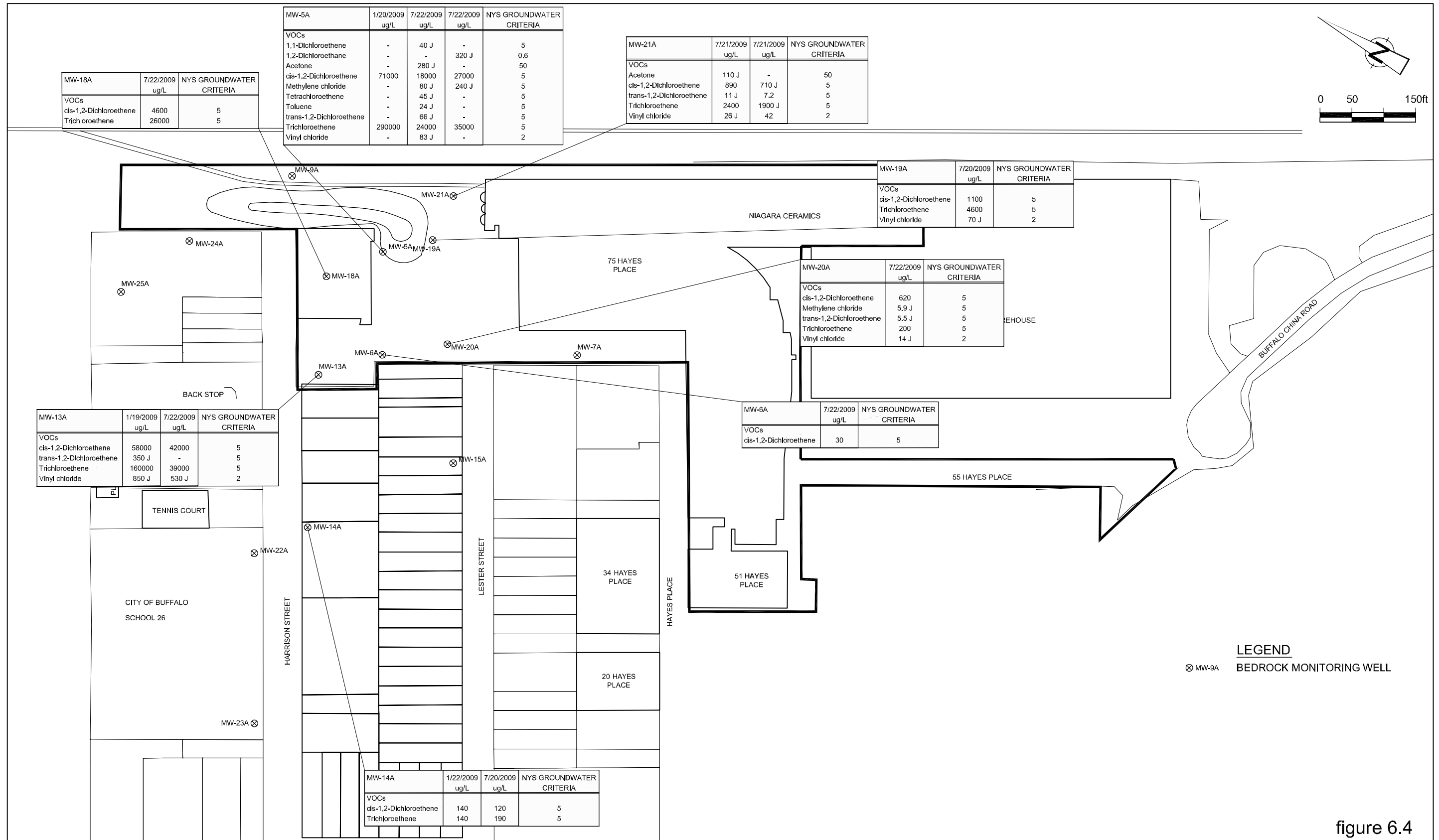


figure 6.4

GROUNDWATER CRITERIA USED FOR EVALUATION OF ANALYTICAL RESULTS - NYSDEC TOGS 1.1.1 AMBIENT WATER QUALITY STANDARDS AND GUIDANCE VALUES AND GROUNDWATER EFFLUENT LIMITATIONS JUNE 1998, JANUARY 1999 ERRATA SHEET, APRIL 2000 ADDENDUM, JUNE 2004 ADDENDUM.

CONTAMINANT CONCENTRATIONS EXCEEDING CRITERIA IN BEDROCK GROUNDWATER REMEDIAL INVESTIGATION FORMER BUFFALO CHINA SITE (NO. C915209) Buffalo, New York



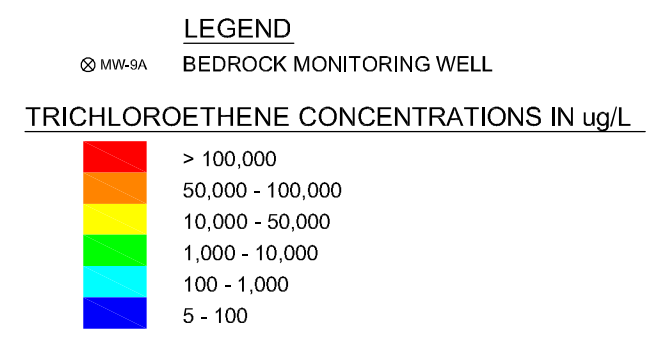
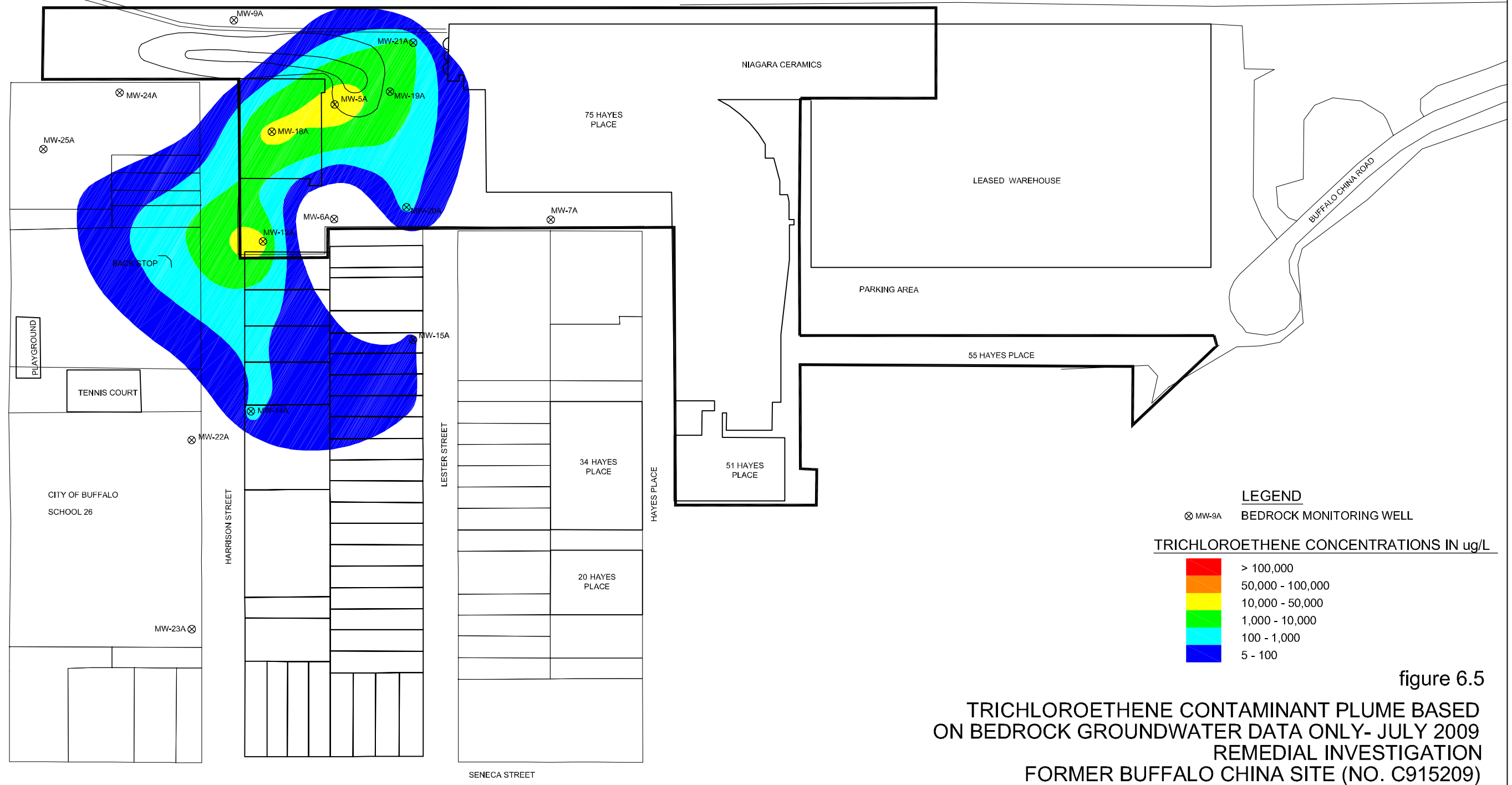
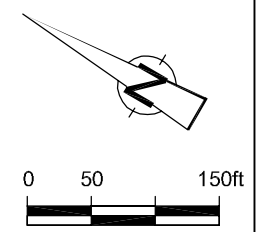


figure 6.5  
 TRICHLOROETHENE CONTAMINANT PLUME BASED  
 ON BEDROCK GROUNDWATER DATA ONLY- JULY 2009  
 REMEDIAL INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 Buffalo, New York





## TABLES

TABLE 3.1

**2006 SSI ANALYTICAL RESULTS SUMMARY - SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	BH-1 S1	BH-1 S2	BH-2 S1	BH-2 S3	BH-3 S1	BH-3 S2	BH-3 S3	BH-4 S1
Sample Name:	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	S-37191-050306-PK-038
Sample Date:	5/2/2006	5/2/2006	5/1/2006	5/1/2006	5/2/2006	5/2/2006	5/2/2006	5/3/2006
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	0.3 - 1.2 ft

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units									
<b>Volatile Organic Compounds</b>										
Acetone	mg/kg	1000	--	--	--	R	--	R	--	
Carbon disulfide	mg/kg	NC	--	--	--	0.0055 U	--	0.0062 U	0.0061 U	
cis-1,2-Dichloroethene	mg/kg	1000	--	--	--	0.0064	--	0.0062 U	0.0061 U	
Methylene chloride	mg/kg	1000	--	--	--	0.0055 U	--	0.0062 U	0.0061 U	
Tetrachloroethene	mg/kg	300	--	--	--	0.0055 U	--	0.0062 U	0.0061 U	
Toluene	mg/kg	1000	--	--	--	0.0055 U	--	0.0062 U	0.0061 U	
Trichloroethene	mg/kg	400	--	--	--	0.018	--	0.0062 U	0.0061 U	
<b>Semi-volatile Organic Compounds</b>										
2-Methylnaphthalene	mg/kg	NC	--	--	--	0.39 U	--	0.41 U	0.41 U	
2-Methylphenol	mg/kg	1000	--	--	--	0.39 U	--	0.41 U	0.41 U	
4-Methylphenol	mg/kg	1000	--	--	--	0.39 U	--	0.41 U	0.41 U	
4-Nitroaniline	mg/kg	NC	--	--	--	1.9 U	--	2 U	2 U	
Acenaphthene	mg/kg	1000	--	--	--	0.39 U	--	0.41 U	0.41 U	
Acenaphthylene	mg/kg	1000	--	--	--	0.014 J	--	0.41 U	0.41 U	
Anthracene	mg/kg	1000	--	--	--	0.029 J	--	0.41 U	0.41 U	
Benzo(a)anthracene	mg/kg	11	--	--	--	0.08 J	--	0.023 J	0.41 U	
Benzo(a)pyrene	mg/kg	1.1	--	--	--	0.098 J	--	0.022 J	0.41 U	
Benzo(b)fluoranthene	mg/kg	11	--	--	--	0.11 J	--	0.033 J	0.41 U	
Benzo(g,h,i)perylene	mg/kg	1000	--	--	--	0.094 J	--	0.023 J	0.41 U	
Benzo(k)fluoranthene	mg/kg	110	--	--	--	0.044 J	--	0.011 J	0.41 U	
bis(2-Ethylhexyl)phthalate	mg/kg	NC	--	--	--	0.39 U	--	0.41 U	0.41 U	
Butyl benzylphthalate	mg/kg	NC	--	--	--	0.018 J	--	0.024 J	0.022 J	
Carbazole	mg/kg	NC	--	--	--	0.011 J	--	0.41 U	0.41 U	
Chrysene	mg/kg	110	--	--	--	0.087 J	--	0.031 J	0.41 U	
Dibenz(a,h)anthracene	mg/kg	1.1	--	--	--	0.021 J	--	0.41 U	0.41 U	
Dibenzofuran	mg/kg	1000	--	--	--	0.011 J	--	0.41 U	0.41 U	
Diethyl phthalate	mg/kg	NC	--	--	--	0.39 U	--	0.41 U	0.41 U	
Di-n-butylphthalate	mg/kg	NC	--	--	--	0.39 U	--	0.41 U	0.41 U	
Fluoranthene	mg/kg	1000	--	--	--	0.14 J	--	0.042 J	0.41 U	
Fluorene	mg/kg	1000	--	--	--	0.39 U	--	0.41 U	0.41 U	
Hexachlorobenzene	mg/kg	12	--	--	--	0.39 U	--	0.41 U	0.41 U	
Hexachlorobutadiene	mg/kg	NC	--	--	--	0.39 U	--	0.41 U	0.41 U	
Indeno(1,2,3-cd)pyrene	mg/kg	11	--	--	--	0.097 J	--	0.025 J	0.41 U	
Naphthalene	mg/kg	1000	--	--	--	0.39 U	--	0.41 U	0.41 U	
Phenanthrene	mg/kg	1000	--	--	--	0.076 J	--	0.035 J	0.41 U	
Phenol	mg/kg	1000	--	--	--	0.0094 J	--	0.41 U	0.41 U	
Pyrene	mg/kg	1000	--	--	--	0.13 J	--	0.037 J	0.41 U	
<b>Metals</b>										
Lead	mg/kg	3900	545	144	816	--	2500 J	18.3 J	--	46.2

**Notes:**

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

R - Rejected.

NC - No criteria.

TABLE 3.1

**2006 SSI ANALYTICAL RESULTS SUMMARY - SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	BH-4 S2	BH-5 S1	BH-5 S2	BH-5 S3	BH-6 S1	BH-6 S3	BH-7 S1	BH-7 S2
Sample Name:	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	S-37191-050206-PK-013	S-37191-050206-PK-014
Sample Date:	5/3/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006
Depth:	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	0.5 - 1 ft	1.4 - 1.8 ft

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units							
<b>Volatile Organic Compounds</b>								
Acetone	mg/kg	1000	--	--	120 U	11 U	R	--
Carbon disulfide	mg/kg	NC	--	--	29 U	2.9 U	0.0056 U	--
cis-1,2-Dichloroethene	mg/kg	1000	--	--	15 J	1.2 J	0.0025 J	--
Methylene chloride	mg/kg	1000	--	--	29 U	0.85 J	0.0056 U	--
Tetrachloroethene	mg/kg	300	--	--	29 U	1.3 J	0.0056 U	--
Toluene	mg/kg	1000	--	--	29 U	2.9 U	0.0056 U	--
Trichloroethene	mg/kg	400	--	--	670	88	0.006	--
<b>Semi-volatile Organic Compounds</b>								
2-Methylnaphthalene	mg/kg	NC	--	--	0.17 J	0.27 J	0.38 U	--
2-Methylphenol	mg/kg	1000	--	--	0.0087 J	0.38 U	0.38 U	--
4-Methylphenol	mg/kg	1000	--	--	0.38 U	0.38 U	0.38 U	--
4-Nitroaniline	mg/kg	NC	--	--	1.8 U	1.8 U	1.8 U	--
Acenaphthene	mg/kg	1000	--	--	0.38 U	0.014 J	0.38 U	--
Acenaphthylene	mg/kg	1000	--	--	0.38 U	0.38 U	0.38 U	--
Anthracene	mg/kg	1000	--	--	0.38 U	0.38 U	0.38 U	--
Benzo(a)anthracene	mg/kg	11	--	--	0.26 J	0.38 U	0.38 U	--
Benzo(a)pyrene	mg/kg	1.1	--	--	0.11 J	0.04 J	0.38 U	--
Benzo(b)fluoranthene	mg/kg	11	--	--	0.24 J	0.065 J	0.38 U	--
Benzo(g,h,i)perylene	mg/kg	1000	--	--	0.059 J	0.025 J	0.38 U	--
Benzo(k)fluoranthene	mg/kg	110	--	--	0.38 U	0.028 J	0.38 U	--
bis(2-Ethylhexyl)phthalate	mg/kg	NC	--	--	1	0.9	0.38 U	--
Butyl benzylphthalate	mg/kg	NC	--	--	0.38 U	0.38 U	0.02 J	--
Carbazole	mg/kg	NC	--	--	0.38 U	0.38 U	0.38 U	--
Chrysene	mg/kg	110	--	--	0.38 U	0.38 U	0.38 U	--
Dibenz(a,h)anthracene	mg/kg	1.1	--	--	0.38 U	0.38 U	0.38 U	--
Dibenzofuran	mg/kg	1000	--	--	0.026 J	0.016 J	0.38 U	--
Diethyl phthalate	mg/kg	NC	--	--	0.38 U	0.38 U	0.38 U	--
Di-n-butylphthalate	mg/kg	NC	--	--	0.46	0.38 U	0.38 U	--
Fluoranthene	mg/kg	1000	--	--	0.24 J	0.17 J	0.38 U	--
Fluorene	mg/kg	1000	--	--	0.38 U	0.02 J	0.38 U	--
Hexachlorobenzene	mg/kg	12	--	--	0.38 U	0.11 J	0.38 U	--
Hexachlorobutadiene	mg/kg	NC	--	--	0.09 J	0.067 J	0.38 U	--
Indeno(1,2,3-cd)pyrene	mg/kg	11	--	--	0.091 J	0.03 J	0.38 U	--
Naphthalene	mg/kg	1000	--	--	0.18 J	0.19 J	0.38 U	--
Phenanthrene	mg/kg	1000	--	--	0.23 J	0.22 J	0.38 U	--
Phenol	mg/kg	1000	--	--	0.016 J	0.38 U	0.38 U	--
Pyrene	mg/kg	1000	--	--	0.13 J	0.079 J	0.38 U	--
<b>Metals</b>								
Lead	mg/kg	3900	33.9	1470	16.7	--	23.7	1.3
<b>Notes:</b>								
1.0 - Exceeds Criteria.								
U - Not present at the associated value.								
J - Estimated concentration.								
R - Rejected.								
NC - No criteria.								

TABLE 3.1

**2006 SSI ANALYTICAL RESULTS SUMMARY - SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	BH-8 S1	BH-8 S2	BH-8 S3	BH-9 S1	BH-9 S2	BH-10 S1	BH-10 S2	BH-11 S1
Sample Name:	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	S-37191-050206-PK-025	S-37191-050206-PK-026	S-37191-050106-JRR-003
Sample Date:	5/2/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006	5/2/2006	5/1/2006
Depth:	0.5 - 1 ft	1.4 - 2.1 ft	2.9 - 3.3 ft	0.5 - 1 ft	2 - 2.5 ft	0.5 - 1 ft	1.3 - 1.8 ft	0 - 0.5 ft

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units									
<b>Volatile Organic Compounds</b>										
Acetone	mg/kg	1000	--	R	R	--	--	--	--	
Carbon disulfide	mg/kg	NC	--	0.0063 U	0.0061 U	--	--	--	--	
cis-1,2-Dichloroethene	mg/kg	1000	--	0.0023 J	0.0043 J	--	--	--	--	
Methylene chloride	mg/kg	1000	--	0.0022 J	0.0061 U	--	--	--	--	
Tetrachloroethene	mg/kg	300	--	0.0063 U	0.0061 U	--	--	--	--	
Toluene	mg/kg	1000	--	0.0063 U	0.0061 U	--	--	--	--	
Trichloroethene	mg/kg	400	--	0.028	0.015	--	--	--	--	
<b>Semi-volatile Organic Compounds</b>										
2-Methylnaphthalene	mg/kg	NC	--	0.4 U	0.41 U	--	--	--	--	
2-Methylphenol	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	
4-Methylphenol	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	
4-Nitroaniline	mg/kg	NC	--	2 U	2 U	--	--	--	--	
Acenaphthene	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	
Acenaphthylene	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	
Anthracene	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	
Benzo(a)anthracene	mg/kg	11	--	0.4 U	0.41 U	--	--	--	--	
Benzo(a)pyrene	mg/kg	1.1	--	0.015 J	0.41 U	--	--	--	--	
Benzo(b)fluoranthene	mg/kg	11	--	0.026 J	0.41 U	--	--	--	--	
Benzo(g,h,i)perylene	mg/kg	1000	--	0.019 J	0.41 U	--	--	--	--	
Benzo(k)fluoranthene	mg/kg	110	--	0.0092 J	0.41 U	--	--	--	--	
bis(2-Ethylhexyl)phthalate	mg/kg	NC	--	0.4 U	0.41 U	--	--	--	--	
Butyl benzylphthalate	mg/kg	NC	--	0.021 J	0.024 J	--	--	--	--	
Carbazole	mg/kg	NC	--	0.4 U	0.41 U	--	--	--	--	
Chrysene	mg/kg	110	--	0.4 U	0.41 U	--	--	--	--	
Dibenz(a,h)anthracene	mg/kg	1.1	--	0.4 U	0.41 U	--	--	--	--	
Dibenzofuran	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	
Diethyl phthalate	mg/kg	NC	--	0.4 U	0.41 U	--	--	--	--	
Di-n-butylphthalate	mg/kg	NC	--	0.4 U	0.41 U	--	--	--	--	
Fluoranthene	mg/kg	1000	--	0.013 J	0.41 U	--	--	--	--	
Fluorene	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	
Hexachlorobenzene	mg/kg	12	--	0.4 U	0.41 U	--	--	--	--	
Hexachlorobutadiene	mg/kg	NC	--	0.4 U	0.41 U	--	--	--	--	
Indeno(1,2,3-cd)pyrene	mg/kg	11	--	0.02 J	0.41 U	--	--	--	--	
Naphthalene	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	
Phenanthrene	mg/kg	1000	--	0.011 J	0.41 U	--	--	--	--	
Phenol	mg/kg	1000	--	0.4 U	0.41 U	--	--	--	--	
Pyrene	mg/kg	1000	--	0.013 J	0.41 U	--	--	--	--	
<b>Metals</b>										
Lead	mg/kg	3900	0.47	11.1	--	9250	241	4.1 J	12.4 J	354

**Notes:**

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

R - Rejected.

NC - No criteria.

TABLE 3.1

**2006 SSI ANALYTICAL RESULTS SUMMARY - SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	BH-11 S2	BH-12 S1	BH-12 S2	BH-12 S3	BH-13 S1	BH-13 S2	BH-13 S3	BH-14 S1
Sample Name:	S-37191-050106-JRR-004	S-37191-050306-PK-032	S-37191-050306-PK-033	S-37191-050306-PK-034	S-37191-050306-PK-035	S-37191-050306-PK-036	S-37191-050306-PK-037	S-37191-050206-PK-030
Sample Date:	5/1/2006	5/3/2006	5/3/2006	5/3/2006	5/3/2006	5/3/2006	5/3/2006	5/2/2006
Depth:	0.5 - 3 ft	0.3 - 1 ft	1.2 - 2.5 ft	4 - 5 ft	0.5 - 1.1 ft	1.5 - 2.5 ft	4 - 5 ft	0.5 - 1.5 ft

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units									
<b>Volatile Organic Compounds</b>										
Acetone	mg/kg	1000	--	--	R	R	--	R	R	
Carbon disulfide	mg/kg	NC	--	--	0.0061 U	0.0061 U	--	0.0066 U	0.0064 U	
cis-1,2-Dichloroethene	mg/kg	1000	--	--	0.0061 U	0.0061 U	--	0.0066 U	0.0064 U	
Methylene chloride	mg/kg	1000	--	--	0.0061 U	0.0061 U	--	0.0066 U	0.0064 U	
Tetrachloroethene	mg/kg	300	--	--	0.0061 U	0.0061 U	--	0.0066 U	0.0064 U	
Toluene	mg/kg	1000	--	--	0.0061 U	0.0061 U	--	0.0066 U	0.0064 U	
Trichloroethene	mg/kg	400	--	--	0.0061 U	0.0061 U	--	0.0014 J	0.0064 U	
<b>Semi-volatile Organic Compounds</b>										
2-Methylnaphthalene	mg/kg	NC	--	--	0.059 J	0.41 U	--	0.065 J	0.41 U	
2-Methylphenol	mg/kg	1000	--	--	0.77 U	0.41 U	--	0.81 U	0.41 U	
4-Methylphenol	mg/kg	1000	--	--	0.77 U	0.41 U	--	0.81 U	0.41 U	
4-Nitroaniline	mg/kg	NC	--	--	3.7 U	2 U	--	3.9 U	2 U	
Acenaphthene	mg/kg	1000	--	--	0.089 J	0.41 U	--	0.022 J	0.41 U	
Acenaphthylene	mg/kg	1000	--	--	0.081 J	0.41 U	--	0.81 U	0.41 U	
Anthracene	mg/kg	1000	--	--	0.22 J	0.41 U	--	0.052 J	0.41 U	
Benzo(a)anthracene	mg/kg	11	--	--	0.7 J	0.01 J	--	1.3	0.013 J	
Benzo(a)pyrene	mg/kg	1.1	--	--	0.68 J	0.41 U	--	1.3	0.012 J	
Benzo(b)fluoranthene	mg/kg	11	--	--	0.85	0.011 J	--	2.7	0.024 J	
Benzo(g,h,i)perylene	mg/kg	1000	--	--	0.52 J	0.41 U	--	1.3	0.013 J	
Benzo(k)fluoranthene	mg/kg	110	--	--	0.34 J	0.41 U	--	0.97	0.0097 J	
bis(2-Ethylhexyl)phthalate	mg/kg	NC	--	--	0.049 J	0.41 U	--	0.81 U	0.41 U	
Butyl benzylphthalate	mg/kg	NC	--	--	0.052 J	0.021 J	--	0.81 U	0.026 J	
Carbazole	mg/kg	NC	--	--	0.13 J	0.41 U	--	0.064 J	0.41 U	
Chrysene	mg/kg	110	--	--	0.78	0.0092 J	--	2.1	0.016 J	
Dibenz(a,h)anthracene	mg/kg	1.1	--	--	0.13 J	0.41 U	--	0.5 J	0.41 U	
Dibenzofuran	mg/kg	1000	--	--	0.057 J	0.41 U	--	0.035 J	0.41 U	
Diethyl phthalate	mg/kg	NC	--	--	0.77 U	0.41 U	--	0.81 U	0.41 U	
Di-n-butylphthalate	mg/kg	NC	--	--	0.77 U	0.41 U	--	0.81 U	0.41 U	
Fluoranthene	mg/kg	1000	--	--	1.5	0.017 J	--	1.4	0.013 J	
Fluorene	mg/kg	1000	--	--	0.087 J	0.41 U	--	0.81 U	0.41 U	
Hexachlorobenzene	mg/kg	12	--	--	0.77 U	0.41 U	--	0.81 U	0.41 U	
Hexachlorobutadiene	mg/kg	NC	--	--	0.77 U	0.41 U	--	0.81 U	0.41 U	
Indeno(1,2,3-cd)pyrene	mg/kg	11	--	--	0.56 J	0.41 U	--	1.4	0.014 J	
Naphthalene	mg/kg	1000	--	--	0.068 J	0.41 U	--	0.064 J	0.41 U	
Phenanthrene	mg/kg	1000	--	--	0.87	0.015 J	--	0.35 J	0.41 U	
Phenol	mg/kg	1000	--	--	0.77 U	0.41 U	--	0.018 J	0.41 U	
Pyrene	mg/kg	1000	--	--	1.1	0.012 J	--	1.1	0.41 U	
<b>Metals</b>										
Lead	mg/kg	3900	106	96.8	54.9	--	2.8	53.2	--	86.5 J

**Notes:**

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

R - Rejected.

NC - No criteria.

TABLE 3.1

**2006 SSI ANALYTICAL RESULTS SUMMARY - SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	BH-14 S2	BH-15 S1	BH-15 S2	BH-16 S1	BH-16 S2	BH-17 S1	BH-17 S2
Sample Name:	S-37191-050206-PK-031	S-37191-050206-PK-007	S-37191-050206-PK-008	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	5/2/2006	5/2/2006	5/2/2006
Depth:	2.5 - 3 ft	1.5 - 2 ft	3 - 3.5 ft	0.75 - 1.2 ft	2.5 - 3.2 ft	0 - 0.5 ft	1 - 1.5 ft

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units								
<b>Volatile Organic Compounds</b>									
Acetone	mg/kg	1000	--	--	--	--	--	--	--
Carbon disulfide	mg/kg	NC	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	mg/kg	1000	--	--	--	--	--	--	--
Methylene chloride	mg/kg	1000	--	--	--	--	--	--	--
Tetrachloroethene	mg/kg	300	--	--	--	--	--	--	--
Toluene	mg/kg	1000	--	--	--	--	--	--	--
Trichloroethene	mg/kg	400	--	--	--	--	--	--	--
<b>Semi-volatile Organic Compounds</b>									
2-Methylnaphthalene	mg/kg	NC	--	--	--	--	--	--	--
2-Methylphenol	mg/kg	1000	--	--	--	--	--	--	--
4-Methylphenol	mg/kg	1000	--	--	--	--	--	--	--
4-Nitroaniline	mg/kg	NC	--	--	--	--	--	--	--
Acenaphthene	mg/kg	1000	--	--	--	--	--	--	--
Acenaphthylene	mg/kg	1000	--	--	--	--	--	--	--
Anthracene	mg/kg	1000	--	--	--	--	--	--	--
Benzo(a)anthracene	mg/kg	11	--	--	--	--	--	--	--
Benzo(a)pyrene	mg/kg	1.1	--	--	--	--	--	--	--
Benzo(b)fluoranthene	mg/kg	11	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	mg/kg	1000	--	--	--	--	--	--	--
Benzo(k)fluoranthene	mg/kg	110	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	mg/kg	NC	--	--	--	--	--	--	--
Butyl benzylphthalate	mg/kg	NC	--	--	--	--	--	--	--
Carbazole	mg/kg	NC	--	--	--	--	--	--	--
Chrysene	mg/kg	110	--	--	--	--	--	--	--
Dibenz(a,h)anthracene	mg/kg	1.1	--	--	--	--	--	--	--
Dibenzofuran	mg/kg	1000	--	--	--	--	--	--	--
Diethyl phthalate	mg/kg	NC	--	--	--	--	--	--	--
Di-n-butylphthalate	mg/kg	NC	--	--	--	--	--	--	--
Fluoranthene	mg/kg	1000	--	--	--	--	--	--	--
Fluorene	mg/kg	1000	--	--	--	--	--	--	--
Hexachlorobenzene	mg/kg	12	--	--	--	--	--	--	--
Hexachlorobutadiene	mg/kg	NC	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	mg/kg	11	--	--	--	--	--	--	--
Naphthalene	mg/kg	1000	--	--	--	--	--	--	--
Phenanthrene	mg/kg	1000	--	--	--	--	--	--	--
Phenol	mg/kg	1000	--	--	--	--	--	--	--
Pyrene	mg/kg	1000	--	--	--	--	--	--	--
<b>Metals</b>									
Lead	mg/kg	3900	45.9 J	804	9.8	422	19.4	282	270

**Notes:**

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

R - Rejected.

NC - No criteria.

TABLE 3.2

2006 SSI ANALYTICAL RESULTS SUMMARY - GROUNDWATER  
 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

Location ID:	MW-4	MW-5	MW-5	MW-6	MW-7	MW-8	MW-9
Sample Name:	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				

New York State Water Quality

Parameters	Units	New York State Water Quality								
		Standards	Guidance Values							
<i>Volatile Organic Compounds</i>										
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	100 U	30000 U	30000 U	1200 U	5.0 U	3.0 J	5.0 U
Acetone	ug/L	NC	50	400 U	120000 U	120000 U	5000 U	20 U	20 U	20 U
cis-1,2-Dichloroethene	ug/L	5	NC	960	130000	140000	24000	5.0 U	8.5	5.0 U
Methyl Tert Butyl Ether	ug/L	NC	10	100 U	30000 U	30000 U	1200 U	1.1 J	5.0 U	5.0 U
Trichloroethene	ug/L	5	NC	1600	540000	600000	12000	5.0 U	31	5.0 U
Vinyl chloride	ug/L	2	NC	100 U	30000 U	30000 U	570 J	5.0 U	5.0 U	5.0 U
<i>Semi-volatile Organic Compounds</i>										
2-Methylnaphthalene	ug/L	NC	NC	--	--	--	--	--	--	--
Caprolactam	ug/L	NC	NC	--	--	--	--	--	--	--
Dibenzofuran	ug/L	NC	NC	--	--	--	--	--	--	--
Fluoranthene	ug/L	NC	50	--	--	--	--	--	--	--
Naphthalene	ug/L	10	10	--	--	--	--	--	--	--
<i>Metals</i>										
Lead	ug/L	25	NC	--	--	--	--	--	46.0	--
Lead (Dissolved)	ug/L	25	NC	--	--	--	--	--	3.0 U	--

Notes:

- 1.0 - Exceeds Criteria.
- Not analyzed
- U - Not present at the associated value.
- J - Estimated concentration.
- B - Compound detected in an associated blank.
- D - Reported from a diluted analysis.
- E - Exceeds the linear range of the instrument.
- N - Tentatively identified.
- P - Greater than 25% difference between concentrations detected on the two GC columns.
- NC - No criteria.

**TABLE 4.1**  
**SUMMARY OF SURFACE SOIL SAMPLE COLLECTION AND ANALYSIS DETAILS**  
**BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE (NO. C915209)**  
**BUFFALO, NEW YORK**

Sample ID	Location	Sample Date	Sample Depth	Sample Type	Parent Sample ID	Analysis/Parameters							Purpose	
						TCL VOCs	TCL SVOCs	Lead	TAL Metals + CN	Pesticides	Herbicides	PCBs		% Solids
<i>Surface Soil</i>														
SS-37191-050708-CMB-001	148 Milton Street (SS-7)	05/07/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-002	148 Milton Street (SS-7)	05/07/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-003	138 Harrison Street (SS-6)	05/07/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-004	138 Harrison Street (SS-6)	05/07/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-005	103 Harrison Street (SS-10)	05/07/08	0-2"	N	-				X					To identify off-Site Impacts
SS-37191-050708-CMB-006	103 Harrison Street (SS-10)	05/07/08	2-4"	N	-				X					To identify off-Site Impacts
SS-37191-050708-CMB-007	36 Lester Street (SS-16)	05/07/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-008	36 Lester Street (SS-16)	05/07/08	0-2"	FD	SS-37191-050708-CMB-007			X						Duplicate Sample
SS-37191-050708-CMB-009	36 Lester Street (SS-16)	05/07/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-010	22 Lester Street (SS-15)	05/07/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-011	22 Lester Street (SS-15)	05/07/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-012	20 Hayes Place (SS-14)	05/07/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-013	20 Hayes Place (SS-14)	05/07/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-014	34 Hayes Place (SS-13)	05/07/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-015	34 Hayes Place (SS-13)	05/07/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-016	34 Hayes Place (SS-12)	05/07/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-017	34 Hayes Place (SS-12)	05/07/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050708-CMB-018	Soil Mound (SS-1)	05/07/08	0-2"	N	-			X						Comparison of off-Site Results
SS-37191-050708-CMB-019	Soil Mound (SS-1)	05/07/08	2-4"	N	-			X						Comparison of off-Site Results
SS-37191-050708-CMB-020	NE Corner Harrison St. Warehouse (SS-2)	05/07/08	0-2"	N	-			X						Comparison of off-Site Results
SS-37191-050708-CMB-021	NE Corner Harrison St. Warehouse (SS-2)	05/07/08	2-4"	N	-			X						Comparison of off-Site Results
SS-37191-050708-CMB-022	West End Harrison St. Warehouse (SS-11)	05/07/08	0-2"	N	-			X						Comparison of off-Site Results
SS-37191-050708-CMB-023	West End Harrison St. Warehouse (SS-11)	05/07/08	2-4"	N	-			X						Comparison of off-Site Results
SS-37191-050808-CMB-001	55 Lester Street North (SS-3)	05/08/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-002	55 Lester Street North (SS-3)	05/08/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-003	55 Lester Street South (SS-4)	05/08/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-004	55 Lester Street South (SS-4)	05/08/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-005	58 Lester Street (SS-5)	05/08/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-006	58 Lester Street (SS-5)	05/08/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-007	127 Harrison Street Backyard (SS-9)	05/08/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-008	127 Harrison Street Backyard (SS-9)	05/08/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-009	127 Harrison Street Front Yard (SS-8)	05/08/08	0-2"	N	-			X						To identify off-Site Impacts
SS-37191-050808-CMB-010	127 Harrison Street Front Yard (SS-8)	05/08/08	2-4"	N	-			X						To identify off-Site Impacts
SS-37191-081308-CB-001	82 Harrison Street (SS-17)	08/13/08	0-2"	N	-				X					To identify off-Site Impacts



**TABLE 4.1**  
**SUMMARY OF SURFACE SOIL SAMPLE COLLECTION AND ANALYSIS DETAILS**  
**BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE (NO. C915209)**  
**BUFFALO, NEW YORK**

Sample ID	Location	Sample Date	Sample Depth	Sample Type	Parent Sample ID	Analysis/Parameters								Purpose	
						TCL VOCs	TCL SVOCs	Lead	TAL Metals + CN	Pesticides	Herbicides	PCBs	% Solids		
<i>Surface Soil</i>															
SS-37191-081308-CB-002	82 Harrison Street (SS-17)	08/13/08	2-4"	N	-				X						To identify off-Site Impacts
SS-37191-081308-CB-003	82 Harrison Street (SS-18)	08/13/08	0-2"	N	-				X						To identify off-Site Impacts
SS-37191-081308-CB-004	82 Harrison Street (SS-18)	08/13/08	2-4"	N	-				X						To identify off-Site Impacts
SS-37191-081308-CB-005	118 Harrison Street (SS-19)	08/13/08	0-2"	N	-			X							To identify off-Site Impacts
SS-37191-081308-CB-006	118 Harrison Street (SS-19)	08/13/08	2-4"	N	-			X							To identify off-Site Impacts
SS-37191-081308-CB-007	118 Harrison Street (SS-20)	08/13/08	0-2"	N	-				X						To identify off-Site Impacts
SS-37191-081308-CB-008	118 Harrison Street (SS-20)	08/13/08	2-4"	N	-				X						To identify off-Site Impacts
SS-37191-081308-CB-009	118 Harrison Street (SS-21)	08/13/08	0-2"	N	-			X							To identify off-Site Impacts
SS-37191-081308-CB-010	118 Harrison Street (SS-21)	08/13/08	2-4"	N	-			X							To identify off-Site Impacts
SS-37191-081308-CB-011	118 Harrison Street (SS-22)	08/13/08	0-2"	N	-			X							To identify off-Site Impacts
SS-37191-081308-CB-012	118 Harrison Street (SS-22)	08/13/08	2-4"	N	-			X							To identify off-Site Impacts
SS-37191-081308-CB-013	118 Harrison Street (SS-23)	08/13/08	0-2"	N	-			X							To identify off-Site Impacts
SS-37191-081308-CB-014	118 Harrison Street (SS-23)	08/13/08	2-4"	N	-			X							To identify off-Site Impacts
SS-37191-081308-CB-015	118 Harrison Street (SS-24)	08/13/08	0-2"	N	-				X						To identify off-Site Impacts
SS-37191-081308-CB-016	118 Harrison Street (SS-24)	08/13/08	2-4"	N	-				X						To identify off-Site Impacts
SS-37191-081308-CB-017	66 Lester Street (SS-25)	08/13/08	0-2"	N	-				X						To identify off-Site Impacts
SS-37191-081308-CB-018	66 Lester Street (SS-25)	08/13/08	2-4"	N	-				X						To identify off-Site Impacts
SS-37191-081308-CB-019	66 Lester Street (SS-25)	08/13/08	2-4"	FD	SS-37191-081308-CB-019				X						To identify off-Site Impacts

Notes:

- ' Feet.
- " Inches.
- CN Cyanide.
- SVOCs Semi-volatile Organic Compounds.
- TCL Target Compound List.
- VOCs Volatile Organic Compounds.
- N Normal Sample
- FD Duplicate Sample

**TABLE 4.2**  
**SUMMARY OF SUBSURFACE SOIL SAMPLE COLLECTION AND ANALYSIS DETAILS**  
**BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE (NO. C915209)**  
**BUFFALO, NEW YORK**

Sample ID	Location	Sample Date	Sample Depth	Sample Type	Parent Sample ID									Purpose
						TCL VOCs	TCL SVOCs	Lead	TAL Metals + CN	Pesticides	Herbicides	PCBs	% Solids	
SO-37191-072507-RN-SB-1	SB-1-07	07/25/07	2.0'-4.0'	N	-	X	X		X	X	X	X	X	Further characterize soil on north side of building
SO-37191-072707-RN-SB-2	SB-2-07	07/27/07	6.5'-8.0'	N	-	X	X	X						Characterize soil mound
SO-37191-072707-RN-SB-20	SB-2-07	07/27/07	6.5'-8.0'	FD	SO-37191-072707-RN-SB-2	X	X	X						Duplicate Sample
SO-37191-072707-RN-SB-3	SB-3-07	07/27/07	10.0'-13.0'	N	-	X	X		X	X	X	X	X	Characterize soil mound
SO-37191-072707-RN-SB-4	SB-4-07	07/27/07	2.0'-4.0'	N	-	X	X	X						Characterize soil mound
SO-37191-072507-RN-SB-5	SB-5-07	07/25/07	4.0'-8.0'	N	-	X	X		X	X	X	X	X	Further characterize soil in Parking Area
SO-37191-073007-CB-SB19	SB-6-07	07/30/07	6.0'-10.4'	N	-	X	X	X						Characterize soil east of Harrison St. Warehouse
SO-37191-073007-CB-SB-6	SB-6-07	07/30/07	6.0'-10.4'	FD	SO-37191-073007-CB-SB19	X	X	X						Duplicate Sample
SO-37191-072507-RN-SB-7	SB-7-07	07/25/07	3.0'-6.0'	N	-	X	X	X						Characterize soil east of Harrison St. Warehouse
SO-37191-072507-RN-SB-8	SB-8-07	07/25/07	3.5'-8.0'	N	-	X	X		X	X	X	X	X	Characterize soil east of Harrison St. Warehouse
SO-37191-072507-RN-SB-9	SB-9-07	07/25/07	3.0'-6.0'	N	-	X	X	X						Characterize soil east of Harrison St. Warehouse
SO-37191-072507-RN-SB-10	SB-10-07	07/25/07	3.0'-8.0'	N	-	X	X	X						Characterize soil east of Harrison St. Warehouse
SO-37191-072607-RN-SB-11	SB-11-07	07/26/07	2.0'-6.0'	N	-	X	X	X						Characterize soil under Harrison St. Warehouse
SO-37191-072607-RN-SB-12	SB-12-07	07/26/07	3.5'-6.0'	N	-	X	X		X	X	X	X	X	Characterize soil under Harrison St. Warehouse
SO-37191-072607-RN-SB-13	SB-13-07	07/26/07	6.0'-8.0'	N	-	X	X	X						Characterize soil under Harrison St. Warehouse
SO-37191-072607-RN-SB-14	SB-14-07	07/26/07	4.0'-8.0'	N	-	X	X	X						Characterize soil under Harrison St. Warehouse
SO-37191-072607-RN-SB-15	SB-15-07	07/26/07	4.0'-8.0'	N	-	X	X	X						Characterize soil under Harrison St. Warehouse
SO-37191-072607-RN-SB-16	SB-16-07	07/26/07	4.0'-8.0'	N	-	X	X	X						Characterize soil under Harrison St. Warehouse
SO-37191-072707-RN-SB-17	SB-17-07	07/27/07	6.0'-10.0'	N	-	X	X	X						Characterize soil mound
SO-37191-072707-RN-SB-27	SB-17-07	07/27/07	6.0'-10.0'	FD	SO-37191-072707-RN-SB-17	X	X	X						Duplicate Sample
SO-37191-073007-CB-SB-18	SB-18-07	07/30/07	4.0'-7.2'	N	-	X	X		X	X	X	X	X	Characterize soil near southern Site boundary
SB-37191-050908-JP-001	SB-18-08	05/09/08	0'-2.0'	N	-	X	X		X	X	X	X	X	To identify off-Site Impacts
SB-37191-050808-JP-011	MW-14	05/08/08	0'-2.0'	N	-	X	X		X	X	X	X	X	To identify off-Site Impacts
SB-37191-050908-JP-002	MW-17	05/09/08	0'-2.0'	N	-	X	X		X	X	X	X	X	To identify off-Site Impacts
SO-37191-052709-JJW-001	MW-6A	05/27/09	6'-8'	N	-	X								Further characterize on-Site soils
SO-37191-052709-JJW-002	MW-19A	05/27/09	6'-8'	N	-	X								Further characterize on-Site soils
SO-37191-060109-JJW-003	MW-20A	06/01/09	6'-8'	N	-	X								Further characterize on-Site soils
SO-37191-060109-JJW-004	MW-21A	06/01/09	2'-4'	N	-	X								Further characterize on-Site soils
SO-37191-060109-JJW-005	MW-22A	06/01/09	10'-12'	N	-	X								Identify off-Site impacts
SO-37191-060209-JJW-006	MW-23A	06/02/09	12'-14'	N	-	X								Identify off-Site impacts
SO-37191-060409-JJW-007	MW-20	06/04/09	2'-4'	N	-	X								Further characterize on-Site soils

**TABLE 4.2**  
**SUMMARY OF SUBSURFACE SOIL SAMPLE COLLECTION AND ANALYSIS DETAILS**  
**BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE (NO. C915209)**  
**BUFFALO, NEW YORK**

<i>Sample ID</i>	<i>Location</i>	<i>Sample Date</i>	<i>Sample Depth</i>	<i>Sample Type</i>	<i>Parent Sample ID</i>	<i>TCL VOCs</i>	<i>TCL SVOCs</i>	<i>Lead</i>	<i>TAL Metals + CN</i>	<i>Pesticides</i>	<i>Herbicides</i>	<i>PCBs</i>	<i>% Solids</i>	<i>Purpose</i>
SO-37191-060409-JJW-008	MW-19	06/04/09	6'-8'	N	-	X								Further characterize on-Site soils
SO-37191-060409-JJW-009	MW-19	06/04/09	6'-8'	FD	SO-37191-060409-JJW-008	X								Duplicate Sample
SO-37191-060809-JJW-010	MW-22	06/08/09	10'-12'	N	-	X								Further characterize on-Site soils
SO-37191-062209-JJW-011	MW-24A	06/22/09	0'-2'	N	-	X								Identify off-Site impacts
SO-37191-062209-JJW-012	MW-25A	06/22/09	4'-6'	N	-	X								Identify off-Site impacts
SO-37191-062209-JJW-013	MW-25A	06/22/09	6'-8'	N	-	X								Identify off-Site impacts

Notes:

- ' Feet.
- " Inches.
- CN Cyanide.
- SVOCs Semi-volatile Organic Compounds.
- TCL Target Compound List.
- VOCs Volatile Organic Compounds.
- N Normal Sample
- FD Duplicate Sample

**TABLE 4.3**  
**SUMMARY OF MONITORING WELL INFORMATION AND GROUNDWATER SAMPLE COLLECTION AND ANALYSIS DETAILS**  
**BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE (NO. C915209)**  
**BUFFALO, NEW YORK**

Well ID	Date of Installation	Sample / Measurement Date <sup>2</sup>	Top of Riser Elevation (ft above AMSL)	Bottom of Well Elevation (ft above AMSL)	Depth to Water (ft below top of riser)	Water Elevation (ft above AMSL)	Sampling Method	Sample ID	Sample Type	Parent Sample ID (Sample ID of original sample for duplicates, etc.)	Analysis/Parameters								
											TCL VOCs	TCL SVOCs	Total TAL Metals +CN	Dissolved TAL Metals	Total Lead	Dissolved Lead	Pesticides	Herbicides	PCBs
MW-4	May-06	08/21/07	596.13	587.4	6.94	589.19	Bailer	WG-37191-082107-RN-001	N	-	X	X	X	X		X	X	X	
		08/21/07			-	-	Bailer	WG-37191-082107-RN-002	FD	WG-37191-082107-RN-001	X	X	X	X		X	X	X	
		05/28/08			5.00	591.13	Low Flow	WG-37191-052808-003	N	-	X	X	X	X		X	X	X	
		05/28/08			-	-	Low Flow	WG-37191-052808-004	FD	WG-37191-052808-003	X								
		01/13/09			5.39	590.74	Low Flow	GW-37191-011309-JJW-002	N	-	X								
MW-5	May-06	08/21/07	596.58	587.71	7.56	589.02	Bailer	WG-37191-082107-RN-003	N	-	X				X	X			
		05/28/08			4.42	592.16	Low Flow	WG-37191-052808-008	N	-	X				X	X			
		01/20/09			3.67	592.91	Low Flow	GW-37191-012009-JJW-011	N	-	X								
		07/22/09			5.47	591.11	Low Flow	WG-37191-072209-040	N	-	X								
		01/20/09			NM	NM	Low Flow	GW-37191-012009-JJW-012	N	-	X								
MW-5A	Dec-08	07/22/09	596.29	579.33	NM	NM	Low Flow	WG-37191-072209-038	N	-	X								
		07/22/09			-	-	Low Flow	WG-37191-072209-039	FD	WG-37191-072209-038	X								
		08/20/07			9.00	585.15	Bailer	NS	-	-									
MW-6	May-06	05/28/08	594.15	585.64	6.87	587.28	Low Flow	WG-37191-052808-002	N	-	X				X	X			
		01/20/09			6.52	587.63	Low Flow	GW-37191-012009-JJW-009	N	-	X								
		07/22/09			7.82	586.33	Low Flow	WG-37191-072209-035	N	-	X								
MW-6A	Jun-09	07/22/09	594.15	573.04	5.40	588.75	Low Flow	WG-37191-072209-033	N	-	X								
MW-7	May-06	01/21/09	592.03	583.78	1.88	590.15	Low Flow	GW-37191-012109-JJW-013	N	-	X								
		07/22/09			2.12	589.91	Low Flow	WG-37191-072209-030	N	-	X								
MW-7A	Dec-08	01/21/09	592.31	576.44	3.05	589.26	Low Flow	GW-37191-012109-JJW-014	N	-	X								
		07/22/09			3.14	589.17	Low Flow	WG-37191-072209-029	N	-	X								
MW-8	May-06	08/21/07	594.00	586.93	4.51	589.49	Bailer	WG-37191-082107-RN-006	N	-	X				X	X			
		05/28/08			2.52	591.48	Low Flow	WG-37191-052808-005	N	-	X					X	X		
		03/05/09			4.86	589.14	Low Flow	WG-37191-030509-001	N	-	X								
MW-9	May-06	07/21/09	594.81	588.79	3.54	590.46	Low Flow	WG-37191-072109-018	N	-	X								
		08/21/07			5.06	589.75	Bailer	WG-37191-082107-RN-007	N	-	X	X	X	X		X	X	X	
		05/28/08			1.71	593.10	Low Flow	WG-37191-052808-001	N	-	X	X	X	X		X	X	X	
MW-9A	Dec-08	01/19/09	594.94	567.98	1.57	593.24	Low Flow	GW-37191-011909-JJW-006	N	-	X								
		07/21/09			2.75	592.06	Low Flow	WG-37191-072109-015	N	-	X								
		01/19/09			11.02	583.92	Low Flow	GW-37191-011909-JJW-007	N	-	X								
MW-10	Aug-08	07/21/09	596.45	587.25	11.18	583.76	Low Flow	WG-37191-072109-014	N	-	X								
		09/19/08			7.61	588.84	Low Flow	WG-37191-091908-002	N	-	X					X	X		
		01/22/09			7.78	588.67	Low Flow	GW-37191-012209-JJW-015	N	-	X								
MW-11	Aug-08	07/20/09	595.04	586.01	7.82	588.63	Low Flow	WG-37191-072009-011	N	-	X								
		09/19/08			5.22	589.82	Low Flow	WG-37191-091908-001	N	-	X					X	X		
		01/22/09			5.61	589.43	Low Flow	GW-37191-012209-JJW-016	N	-	X								
MW-12 <sup>1</sup>	Jul-07	01/22/09	599.83	587.14	-	-	Low Flow	GW-37191-012209-JJW-017	FD	WG-37191-012209-JJW-016	X								
		07/20/09			6.41	588.63	Low Flow	WG-37191-072009-006	N	-	X								
		08/21/07			10.71	589.12	Bailer	WG-37191-082107-RN-004	N	-	X					X	X		
		08/21/07			-	-	Bailer	WG-37191-082107-RN-005	FD	WG-37191-082107-RN-004	X					X	X		
		05/28/08			9.15	590.68	Low Flow	WG-37191-052808-006	N	-	X					X	X		
MW-13	Jul-07	05/28/08	594.83	587.67	-	-	Low Flow	WG-37191-052808-007	FD	WG-37191-052808-006	X				X	X			
		01/13/09			8.82	591.01	Low Flow	GW-37191-011309-JJW-005	N	-	X								
		07/22/09			9.38	590.45	Low Flow	WG-37191-072209-036	N	-	X								
		08/20/07			DRY	NS	NS	-	-	-	-								
		05/28/08			DRY	NS	NS	-	-	-	-								
01/19/09	DRY	NS	NS	-	-	-	-												
07/22/09	DRY	NS	NS	-	-	-	-												

**TABLE 4.3**  
**SUMMARY OF MONITORING WELL INFORMATION AND GROUNDWATER SAMPLE COLLECTION AND ANALYSIS DETAILS**  
**BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE (NO. C915209)**  
**BUFFALO, NEW YORK**

Well ID	Date of Installation	Sample / Measurement Date <sup>2</sup>	Top of Riser Elevation (ft above AMSL)	Bottom of Well Elevation (ft above AMSL)	Depth to Water (ft below top of riser)	Water Elevation (ft above AMSL)	Sampling Method	Sample ID	Sample Type	Parent Sample ID (Sample ID of original sample for duplicates, etc.)	Analysis/Parameters									
											TCL VOCs	TCL SVOCs	Total TAL Metals +CN	Dissolved TAL Metals	Total Lead	Dissolved Lead	Pesticides	Herbicides	PCBs	
MW-13A	Dec-08	01/19/09	594.75	580.41	6.16	588.59	Low Flow	GW-37191-011909-JJW-008	N		X									
MW-14	May-08	07/22/09	593.15	584.56	6.71	588.04	Low Flow	WG-37191-072209-034	N		X									
		05/28/08			DRY	NS	NS	-	-											
		01/22/09			DRY	NS	NS	-	-											
MW-14A	Dec-08	07/20/09	593.37	578.45	11.40	581.97	Low Flow	GW-37191-012209-JJW-018	N		X									
		01/22/09			DRY	NS	NS	-	-											
		07/20/09			DRY	NS	NS	-	-											
MW-15	May-08	05/28/08	592.49	585.31	DRY	DRY	NS	NS	N											
		01/23/09			DRY	NS	NS	-	-											
		07/20/09			DRY	NS	NS	-	-											
MW-15A	Dec-08	01/23/09	593.37	578.42	10.52	582.85	Low Flow	GW-37191-012309-JJW-019	N		X									
		07/20/09			DRY	NS	NS	-	-											
MW-16	May-08	05/28/08	591.74	581.25	DRY	DRY	NS	NS	N											
		07/20/09			DRY	NS	NS	-	-											
MW-17	May-08	05/28/08	592.58	581.35	7.61	584.97	Low Flow	WG-37191-052808-009	N		X			X	X					
		01/20/09			4.48	588.10	Low Flow	GW-37191-012009-JJW-010	N		X									
		07/20/09			10.34	582.24	Low Flow	WG-37191-072009-013	N		X									
MW-18	Dec-08	01/13/09	596.13	586.42	6.01	590.12	Low Flow	GW-37191-011309-JJW-003	N		X									
		01/13/09			-	-	Low Flow	GW-37191-011309-JJW-004	FD	GW-37191-011309-JJW-003	X									
		07/22/09			6.77	589.58	Low Flow	WG-37191-072209-042	N		X									
MW-18A	May-09	07/22/09	596.35	580.62	8.00	588.35	Low Flow	WG-37191-072209-041	N		X									
MW-19	Jun-09	07/20/09	593.68	586.32	3.29	590.39	Low Flow	WG-37191-072009-002	N		X									
MW-19A	Jun-09	07/20/09	593.82	596.1	10.00	583.82	Low Flow	WG-37191-072009-001	N		X									
MW-20	Jun-09	07/22/09	593.32	584.79	3.98	589.34	Low Flow	WG-37191-072209-032	N		X									
MW-20A	Jun-09	07/22/09	593.06	574.41	3.95	589.11	Low Flow	WG-37191-072209-031	N		X									
MW-21A	Jun-09	07/21/09	590.98	569.78	7.17	583.81	Low Flow	WG-37191-072109-016	N		X									
		07/21/09			-	-	Low Flow	WG-37191-072109-017	FD	WG-37191-072109-016	X									
MW-22	Jun-09	07/20/09	592.34	580.58	6.12	586.22	Low Flow	WG-37191-072009-004	N		X									
MW-22A	Jun-09	07/20/09	592.23	557.93	8.49	583.74	Low Flow	WG-37191-072009-003	N		X									
MW-23A	Jun-09	07/20/09	590.65	556.5	15.66	574.99	Low Flow	WG-37191-072009-007	N		X									
		07/20/09			-	-	Low Flow	WG-37191-072009-008	FD	WG-37191-072009-007	X									
MW-24A	Jun-09	07/20/09	580.08	582.63	7.90	572.18	Low Flow	WG-37191-072009-010	N		X									
MW-25	Jun-09	07/20/09	598.13	590.92	DRY	NS	NS	-	-		X									
MW-25A	Jun-09	07/20/09	598.13	583.97	7.94	590.19	Low Flow	WG-37191-072009-009	N		X									

Notes:

<sup>1</sup>

MW-12 is a stick up well.

<sup>2</sup>

Wells were purged dry on 8/20/07. Analytical samples were collected on 8/21/07.

- CN Cyanide.
- SVOCs Semi-volatile Organic Compounds.
- TCL Target Compound List.
- VOCs Volatile Organic Compounds.
- N Normal Sample
- FD Duplicate Sample
- NS Not Sampled

**TABLE 4.4**  
**SUMMARY OF SOIL VAPOR INTRUSION SAMPLE COLLECTION AND ANALYSIS DETAILS**  
**BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE (NO. C915209)**  
**BUFFALO, NEW YORK**

<i>Sample ID</i>	<i>Location</i>	<i>Sample Date</i>	<i>Sample Type</i>	<i>Parent Sample ID</i>	<i>Start Time</i>	<i>End Time</i>	<i>Analysis/Parameters</i>		<i>Purpose</i>
							<i>VOCs TO-15 (Full List)</i>	<i>Helium</i>	
SS-37191-111809-JDW-001	103 Harrison	11/18/2009	N		10:49	10:49	X	X	To identify potential soil vapor intrusion issues
IA-37191-111809-JDW-001	103 Harrison	11/18/2009	N		10:50	10:50	X		To identify potential soil vapor intrusion issues
SS-37191-111809-JDW-002	82 Harrison	11/18/2009	N		12:32	12:32	X	X	To identify potential soil vapor intrusion issues
SS-37191-111809-JDW-003	82 Harrison	11/18/2009	FD	SS-37191-111809-JDW-002	12:32	12:32	X	X	Duplicate Sample
IA-37191-111809-JDW-002	82 Harrison	11/18/2009	N		12:33	12:33	X		To identify potential soil vapor intrusion issues
OA-37191-111809-JDW-001	Up Wind	11/18/2009	N		13:06	13:06	X		To identify potential soil vapor intrusion issues
OA-37191-111809-JDW-002	Up Wind	11/18/2009	FD	OA-37191-111809-JDW-001	13:06	13:06	X		Duplicate Sample
SS-37191-111809-JDW-004	138 Harrison	11/18/2009	N		14:39	14:39	X	X	To identify potential soil vapor intrusion issues
IA-37191-111809-JDW-003	138 Harrison	11/18/2009	N		14:39	14:39	X		To identify potential soil vapor intrusion issues
SS-37191-111809-JDW-005	127 Harrison	11/18/2009	N		16:12	16:12	X	X	To identify potential soil vapor intrusion issues
IA-37191-111809-JDW-004	127 Harrison	11/18/2009	N		16:13	16:13	X		To identify potential soil vapor intrusion issues
IA-37191-111809-JDW-005	127 Harrison	11/18/2009	FD	IA-37191-111809-JDW-004	16:13	16:13	X		Duplicate Sample

Notes:

- SS - Sub slab
- IA - Indoor Air
- OA - Outdoor Air

TABLE 5.1

SUMMARY OF HYDRAULIC CONDUCTIVITY VALUES  
 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

<i>Well ID</i>	<i>Year Installed</i>	<i>Year Established</i>	<i>Falling Head (cm/sec)</i>	<i>Rising Head (cm/sec)</i>	<i>Geometric Mean (cm/sec)</i>
MW-4	2006	2009	2.81E-05 2.54E-05	3.68E-05 --	2.97E-05
MW-5	2006	2009	2.05E-05 2.10E-05	2.05E-05 1.96E-05	2.04E-05
MW-5A	2008	--	Not Tested - NAPL		
MW-6	2006	--	Not Tested - Insufficient Water		
MW-6A	2009	2009	8.29E-04 6.95E-04	7.87E-04 6.15E-04	7.27E-04
MW-7	2006	2009	5.50E-04 5.67E-04 6.29E-04	5.01E-04 5.51E-04 --	5.58E-04
MW-7A	2009	2009	1.29E-03 1.33E-03	1.36E-03 1.35E-03	1.33E-03
MW-8	2006	2009	7.36E-05 3.28E-05	3.75E-05 5.53E-05	4.73E-05
MW-9	2006	2009	4.72E-04 4.56E-04	4.64E-04 4.51E-04	4.61E-04
MW-9A	2008	2009	3.67E-02 4.93E-02 5.47E-02	4.09E-02 4.25E-02 4.44E-02	4.44E-02
MW-10	2008	2009	4.36E-04 1.28E-04	3.37E-04 1.19E-04	2.18E-04
MW-11	2008	2009	1.52E-05	1.43E-05	1.48E-05
MW-12	2007	--	Tested, however, had irregular response		
MW-13	2007	--	Not tested - Insufficient water, dry		
MW-13A	2008	2009	6.39E-04 6.39E-04	6.62E-04 6.20E-04	6.40E-04
MW-14	2008	--	Not tested - Insufficient water, dry		
MW-14A	2008	2009	2.18E-02 1.81E-02	1.54E-02 1.66E-02	1.78E-02
MW-15	2008	--	Not tested - Insufficient water, dry		
MW-15A	2008	2009	7.94E-02 6.06E-02	3.53E-02 7.67E-02	6.01E-02
MW-16	2008	--	Not tested - Insufficient water, dry		

TABLE 5.1

SUMMARY OF HYDRAULIC CONDUCTIVITY VALUES  
 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

<i>Well ID</i>	<i>Year Installed</i>	<i>Year Established</i>	<i>Falling Head (cm/sec)</i>	<i>Rising Head (cm/sec)</i>	<i>Geometric Mean (cm/sec)</i>
MW-17	2008	--	Not tested - Insufficient water		
MW-18	2008	2009	1.47E-05 1.41E-05	1.74E-05 1.89E-05	1.61E-05
MW-18A	2009	2009	9.10E-04 8.54E-04	7.44E-04 8.31E-04	8.32E-04
MW-19	2009	2009	3.21E-05 --	-- --	3.21E-05
MW-19A	2009	2009	2.71E-02 2.55E-02	2.43E-02 2.65E-02	2.58E-02
MW-20	2009	2009	1.56E-05	--	1.56E-05
MW-20A	2009	2009	6.61E-04 5.92E-04	7.62E-04 5.65E-04	6.41E-04
MW-21A	2009	2009	5.88E-02 5.54E-02	7.77E-02 7.21E-02	6.53E-02
MW-22A	2009	2009	2.81E-03 3.04E-03	2.87E-03 3.00E-03	2.93E-03
MW-23A	2009	2009	2.89E-04 4.01E-04	1.31E-04 1.66E-04	2.24E-04
MW-24A	2009	2009	2.13E-03 1.85E-03	2.28E-03 2.15E-03	2.10E-03
MW-25	--	--	Not tested - Insufficient water, dry		
MW-25A	2009	2009	8.35E-02 1.50E-01	1.01E-01 1.01E-01	1.06E-01



TABLE 6.1

**ANALYTICAL RESULTS SUMMARY - SURFACE SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

<i>On/Off-Site:</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>Off-Site</i>
<i>Location ID:</i>	103 Harrison (SS-10)	103 Harrison (SS-10)	127 Harrison Back (SS-9)	127 Harrison Back (SS-9)	127 Harrison Front (SS-8)	127 Harrison Front (SS-8)	138 Harrison (SS-6)	138 Harrison (SS-6)	148 Milton (SS-7)
<i>Sample Name:</i>	SS-37191-050708-CMB-005	SS-37191-050708-CMB-006	SS-37191-050808-CMB-007	SS-37191-050808-CMB-008	SS-37191-050808-CMB-009	SS-37191-050808-CMB-010	SS-37191-050708-CMB-003	SS-37191-050708-CMB-004	SS-37191-050708-CMB-001
<i>Sample Date:</i>	5/7/2008	5/7/2008	5/8/2008	5/8/2008	5/8/2008	5/8/2008	5/7/2008	5/7/2008	5/7/2008
<i>Depth:</i>	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs

6 NYCRR Part 375-6.8(b):  
RUSCO -

Protection of Public Health <sup>2</sup>

<i>Parameters</i>	<i>Units</i> <sup>1</sup>	<i>Residential</i>	<i>Industrial</i>							
<b>Metals</b>										
Aluminum	mg/kg	NC	NC	10600	10200	--	--	--	--	--
Antimony	mg/kg	NC	NC	--	--	--	--	--	--	--
Arsenic	mg/kg	16	16	14.2	13.6	--	--	--	--	--
Barium	mg/kg	350	10000	81.4	75.5	--	--	--	--	--
Beryllium	mg/kg	14	2700	0.63	0.62	--	--	--	--	--
Cadmium	mg/kg	2.5	60	1.1 J	1.1 J	--	--	--	--	--
Calcium	mg/kg	NC	NC	3550	3590	--	--	--	--	--
Chromium Total <sup>3</sup>	mg/kg	22	800	16.9 J	16.4 J	--	--	--	--	--
Cobalt	mg/kg	NC	NC	4.1 J	4.0 J	--	--	--	--	--
Copper	mg/kg	270	10000	28.8 J	27.7 J	--	--	--	--	--
Iron	mg/kg	NC	NC	20800	19600	--	--	--	--	--
Lead	mg/kg	400	3900	128	125	211 J	148 J	364 J	632 J	295
Magnesium	mg/kg	NC	NC	1940	1890	--	--	--	--	320
Manganese	mg/kg	2000	10000	219	211	--	--	--	--	66.7 J
Mercury	mg/kg	0.81	5.7	0.21	0.20	--	--	--	--	--
Nickel	mg/kg	140	10000	13.5 J	12.8 J	--	--	--	--	--
Potassium	mg/kg	NC	NC	946	933	--	--	--	--	--
Selenium	mg/kg	36	6800	1.2	1.5	--	--	--	--	--
Silver	mg/kg	36	6800	0.29 J	0.34 J	--	--	--	--	--
Sodium	mg/kg	NC	NC	74.9 J	61.5 J	--	--	--	--	--
Thallium	mg/kg	NC	NC	--	--	--	--	--	--	--
Vanadium	mg/kg	NC	NC	26.0	25.1	--	--	--	--	--
Zinc	mg/kg	2200	10000	152 J	146 J	--	--	--	--	--

**Wet Chemistry**

Cyanide (total)	mg/kg	27	10000	--	--	--	--	--	--	--
Total Solids	%	NC	NC	--	--	--	--	--	--	--

**Notes:**

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

<sup>3</sup> - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.1

**ANALYTICAL RESULTS SUMMARY - SURFACE SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

<i>On/Off-Site:</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>On-Site</i>
<i>Location ID:</i>	148 Milton (SS-7)	20 Hayes Place (SS-14)	20 Hayes Place (SS-14)	22 Lester (SS-15)	22 Lester (SS-15)	34 Hayes North (SS-12)	34 Hayes North (SS-12)	34 Hayes South (SS-13)	
<i>Sample Name:</i>	SS-37191-050708-CMB-002	SS-37191-050708-CMB-012	SS-37191-050708-CMB-013	SS-37191-050708-CMB-010	SS-37191-050708-CMB-011	SS-37191-050708-CMB-016	SS-37191-050708-CMB-017	SS-37191-050708-CMB-014	
<i>Sample Date:</i>	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	
<i>Depth:</i>	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	

6 NYCRR Part 375-6.8(b):  
RUSCO -

Protection of Public Health <sup>2</sup>

<i>Parameters</i>	<i>Units</i> <sup>1</sup>	<i>Residential</i>	<i>Industrial</i>							
<b>Metals</b>										
Aluminum	mg/kg	NC	NC	--	--	--	--	--	--	--
Antimony	mg/kg	NC	NC	--	--	--	--	--	--	--
Arsenic	mg/kg	16	16	--	--	--	--	--	--	--
Barium	mg/kg	350	10000	--	--	--	--	--	--	--
Beryllium	mg/kg	14	2700	--	--	--	--	--	--	--
Cadmium	mg/kg	2.5	60	--	--	--	--	--	--	--
Calcium	mg/kg	NC	NC	--	--	--	--	--	--	--
Chromium Total <sup>3</sup>	mg/kg	22	800	--	--	--	--	--	--	--
Cobalt	mg/kg	NC	NC	--	--	--	--	--	--	--
Copper	mg/kg	270	10000	--	--	--	--	--	--	--
Iron	mg/kg	NC	NC	--	--	--	--	--	--	--
Lead	mg/kg	400	3900	182	44.0	82.9 J	347	336	23.0	59.0 J
Magnesium	mg/kg	NC	NC	--	--	--	--	--	--	--
Manganese	mg/kg	2000	10000	--	--	--	--	--	--	--
Mercury	mg/kg	0.81	5.7	--	--	--	--	--	--	--
Nickel	mg/kg	140	10000	--	--	--	--	--	--	--
Potassium	mg/kg	NC	NC	--	--	--	--	--	--	--
Selenium	mg/kg	36	6800	--	--	--	--	--	--	--
Silver	mg/kg	36	6800	--	--	--	--	--	--	--
Sodium	mg/kg	NC	NC	--	--	--	--	--	--	--
Thallium	mg/kg	NC	NC	--	--	--	--	--	--	--
Vanadium	mg/kg	NC	NC	--	--	--	--	--	--	--
Zinc	mg/kg	2200	10000	--	--	--	--	--	--	--

**Wet Chemistry**

Cyanide (total)	mg/kg	27	10000	--	--	--	--	--	--	--
Total Solids	%	NC	NC	--	--	--	--	--	--	--

**Notes:**

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

<sup>3</sup> - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.1

**ANALYTICAL RESULTS SUMMARY - SURFACE SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

On/Off-Site:	On-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Location ID:	34 Hayes South (SS-13)	36 Lester (SS-16)	36 Lester (SS-16)	36 Lester (SS-16)	36 Lester (SS-16)	55 Lester North (SS-3)	55 Lester North (SS-3)	55 Lester South (SS-4)	55 Lester South (SS-4)
Sample Name:	SS-37191-050708-CMB-015	SS-37191-050708-CMB-007	SS-37191-050708-CMB-008	SS-37191-050708-CMB-009	SS-37191-050808-CMB-001	SS-37191-050808-CMB-002	SS-37191-050808-CMB-003	SS-37191-050808-CMB-004	SS-37191-050808-CMB-004
Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/8/2008	5/8/2008	5/8/2008	5/8/2008	5/8/2008
Depth:	2 - 4 inches bgs	0 - 2 inches bgs	0 - 2 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs
			Duplicate						

6 NYCRR Part 375-6.8(b):  
RUSCO -

Protection of Public Health <sup>2</sup>

Parameters	Units <sup>1</sup>	Residential	Industrial									
<b>Metals</b>												
Aluminum	mg/kg	NC	NC	--	--	--	--	--	--	--	--	
Antimony	mg/kg	NC	NC	--	--	--	--	--	--	--	--	
Arsenic	mg/kg	16	16	--	--	--	--	--	--	--	--	
Barium	mg/kg	350	10000	--	--	--	--	--	--	--	--	
Beryllium	mg/kg	14	2700	--	--	--	--	--	--	--	--	
Cadmium	mg/kg	2.5	60	--	--	--	--	--	--	--	--	
Calcium	mg/kg	NC	NC	--	--	--	--	--	--	--	--	
Chromium Total <sup>3</sup>	mg/kg	22	800	--	--	--	--	--	--	--	--	
Cobalt	mg/kg	NC	NC	--	--	--	--	--	--	--	--	
Copper	mg/kg	270	10000	--	--	--	--	--	--	--	--	
Iron	mg/kg	NC	NC	--	--	--	--	--	--	--	--	
Lead	mg/kg	400	3900	148	74.3	64.8	52.2	66.9 J	30.6 J	46.3 J	92.1 J	
Magnesium	mg/kg	NC	NC	--	--	--	--	--	--	--	--	
Manganese	mg/kg	2000	10000	--	--	--	--	--	--	--	--	
Mercury	mg/kg	0.81	5.7	--	--	--	--	--	--	--	--	
Nickel	mg/kg	140	10000	--	--	--	--	--	--	--	--	
Potassium	mg/kg	NC	NC	--	--	--	--	--	--	--	--	
Selenium	mg/kg	36	6800	--	--	--	--	--	--	--	--	
Silver	mg/kg	36	6800	--	--	--	--	--	--	--	--	
Sodium	mg/kg	NC	NC	--	--	--	--	--	--	--	--	
Thallium	mg/kg	NC	NC	--	--	--	--	--	--	--	--	
Vanadium	mg/kg	NC	NC	--	--	--	--	--	--	--	--	
Zinc	mg/kg	2200	10000	--	--	--	--	--	--	--	--	

**Wet Chemistry**

Cyanide (total)	mg/kg	27	10000	--	--	--	--	--	--	--	--
Total Solids	%	NC	NC	--	--	--	--	--	--	--	--

**Notes:**

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

<sup>3</sup> - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.1

**ANALYTICAL RESULTS SUMMARY - SURFACE SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

<i>On/Off-Site:</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>On-Site</i>	<i>On-Site</i>	<i>On-Site</i>	<i>On-Site</i>	<i>On-Site</i>	<i>On-Site</i>	<i>On-Site</i>
<i>Location ID:</i>	58 Lester (SS-5)	58 Lester (SS-5)	NE Harrison St WH (SS-2)	NE Harrison St WH (SS-2)	S Harrison St WH (SS-11)	S Harrison St WH (SS-11)	S Harrison St WH (SS-11)	Soil Mound (SS-1)	Soil Mound (SS-1)
<i>Sample Name:</i>	SS-37191-050808-CMB-005	SS-37191-050808-CMB-006	SS-37191-050708-CMB-020	SS-37191-050708-CMB-021	SS-37191-050708-CMB-022	SS-37191-050708-CMB-023	SS-37191-050708-CMB-018	SS-37191-050708-CMB-018	SS-37191-050708-CMB-019
<i>Sample Date:</i>	5/8/2008	5/8/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008
<i>Depth:</i>	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs

6 NYCRR Part 375-6.8(b):  
RUSCO -

Protection of Public Health <sup>2</sup>

<i>Parameters</i>	<i>Units</i> <sup>1</sup>	<i>Residential</i>	<i>Industrial</i>							
<b>Metals</b>										
Aluminum	mg/kg	NC	NC	--	--	--	--	--	--	--
Antimony	mg/kg	NC	NC	--	--	--	--	--	--	--
Arsenic	mg/kg	16	16	--	--	--	--	--	--	--
Barium	mg/kg	350	10000	--	--	--	--	--	--	--
Beryllium	mg/kg	14	2700	--	--	--	--	--	--	--
Cadmium	mg/kg	2.5	60	--	--	--	--	--	--	--
Calcium	mg/kg	NC	NC	--	--	--	--	--	--	--
Chromium Total <sup>3</sup>	mg/kg	22	800	--	--	--	--	--	--	--
Cobalt	mg/kg	NC	NC	--	--	--	--	--	--	--
Copper	mg/kg	270	10000	--	--	--	--	--	--	--
Iron	mg/kg	NC	NC	--	--	--	--	--	--	--
Lead	mg/kg	400	3900	348 J	385 J	15.2	33.7	738 J	742 J	30.8
Magnesium	mg/kg	NC	NC	--	--	--	--	--	--	--
Manganese	mg/kg	2000	10000	--	--	--	--	--	--	--
Mercury	mg/kg	0.81	5.7	--	--	--	--	--	--	--
Nickel	mg/kg	140	10000	--	--	--	--	--	--	--
Potassium	mg/kg	NC	NC	--	--	--	--	--	--	--
Selenium	mg/kg	36	6800	--	--	--	--	--	--	--
Silver	mg/kg	36	6800	--	--	--	--	--	--	--
Sodium	mg/kg	NC	NC	--	--	--	--	--	--	--
Thallium	mg/kg	NC	NC	--	--	--	--	--	--	--
Vanadium	mg/kg	NC	NC	--	--	--	--	--	--	--
Zinc	mg/kg	2200	10000	--	--	--	--	--	--	--

**Wet Chemistry**

Cyanide (total)	mg/kg	27	10000	--	--	--	--	--	--	--
Total Solids	%	NC	NC	--	--	--	--	--	--	--

**Notes:**

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

<sup>3</sup> - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.1

**ANALYTICAL RESULTS SUMMARY - SURFACE SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

On/Off-Site:	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Location ID:	82 Harrison Street (SS-17)	82 Harrison Street (SS-17)	82 Harrison Street (SS-18)	82 Harrison Street (SS-18)	118 Harrison Street (SS-19)	118 Harrison Street (SS-19)	118 Harrison Street (SS-20)	118 Harrison Street (SS-20)	118 Harrison Street (SS-20)
Sample Name:	SS-37191-081308-CB-001	SS-37191-081308-CB-002	SS-37191-081308-CB-003	SS-37191-081308-CB-004	SS-37191-081308-CB-005	SS-37191-081308-CB-006	SS-37191-081308-CB-007	SS-37191-081308-CB-008	SS-37191-081308-CB-008
Sample Date:	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008
Depth:	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	2 - 4 inches bgs

6 NYCRR Part 375-6.8(b):  
RUSCO -

Protection of Public Health <sup>2</sup>

Parameters	Units <sup>1</sup>	Residential		Industrial		Residential		Industrial		Residential		Industrial	
		NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
<b>Metals</b>													
Aluminum	mg/kg	NC	NC	10600	10200	8810	9080	--	--	6280	6160		
Antimony	mg/kg	NC	NC	0.68 J	1.0 J	0.63 J	0.75 J	--	--	0.81 J	0.88 J		
Arsenic	mg/kg	16	16	11.8	11.4	11.4	11.7	--	--	11.0	10.4		
Barium	mg/kg	350	10000	115	112	85.0	82.8	--	--	89.3	88.3		
Beryllium	mg/kg	14	2700	0.67	0.63	0.65	0.66	--	--	0.54	0.51 J		
Cadmium	mg/kg	2.5	60	1.1	1.1	0.84	0.85	--	--	1.3	1.3		
Calcium	mg/kg	NC	NC	5130	4510	4930	4570	--	--	36200	51800		
Chromium Total <sup>3</sup>	mg/kg	22	800	22.5	21.7	20.1	18.9	--	--	20.1	19.8		
Cobalt	mg/kg	NC	NC	8.4	8.0	6.9	7.0	--	--	5.2 J	5.1 J		
Copper	mg/kg	270	10000	45.5	44.6	35.2	34.6	--	--	37.6	35.7		
Iron	mg/kg	NC	NC	26700	25800	23600	23900	--	--	22800	21700		
Lead	mg/kg	400	3900	251	244	122	122	356	335	163	159		
Magnesium	mg/kg	NC	NC	3320	3130	3040	3030	--	--	6110	6630		
Manganese	mg/kg	2000	10000	433	393	394	395	--	--	385	391		
Mercury	mg/kg	0.81	5.7	0.22	0.26	0.12	0.15	--	--	0.16	0.17		
Nickel	mg/kg	140	10000	24.8	23.9	21.5	21.5	--	--	18.2	17.7		
Potassium	mg/kg	NC	NC	1420	1230	975	908	--	--	1020	919		
Selenium	mg/kg	36	6800	1.2	1.0	0.94	1.1	--	--	0.70	0.72		
Silver	mg/kg	36	6800	0.76 U	0.67 U	0.66 U	0.64 U	--	--	0.67 U	0.66 U		
Sodium	mg/kg	NC	NC	757 U	673 U	41.9 J	203 J	--	--	668 U	660 U		
Thallium	mg/kg	NC	NC	1.5 U	1.5 U	1.3 U	1.3 U	--	--	1.3 U	1.3 U		
Vanadium	mg/kg	NC	NC	23.5	23.0	20.9	21.1	--	--	19.9	19.9		
Zinc	mg/kg	2200	10000	313	306	222	216	--	--	277	263		

**Wet Chemistry**

Cyanide (total)	mg/kg	27	10000	0.76 U	0.67 U	0.66 U	0.64 U	--	--	0.67 U	0.66 U		
Total Solids	%	NC	NC	66.1	74.3	75.2	77.9	63.7	66.4	74.9	75.8		

**Notes:**

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

<sup>3</sup> - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.1

**ANALYTICAL RESULTS SUMMARY - SURFACE SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

On/Off-Site:	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site
Location ID:	118 Harrison Street (SS-21)	118 Harrison Street (SS-21)	118 Harrison Street (SS-22)	118 Harrison Street (SS-22)	118 Harrison Street (SS-23)	118 Harrison Street (SS-23)	118 Harrison Street (SS-24)	118 Harrison Street (SS-24)	118 Harrison Street (SS-24)
Sample Name:	SS-37191-081308-CB-009	SS-37191-081308-CB-010	SS-37191-081308-CB-011	SS-37191-081308-CB-012	SS-37191-081308-CB-013	SS-37191-081308-CB-014	SS-37191-081308-CB-015	SS-37191-081308-CB-016	SS-37191-081308-CB-016
Sample Date:	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008
Depth:	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	0 - 2 inches bgs	2 - 4 inches bgs	2 - 4 inches bgs

6 NYCRR Part 375-6.8(b):  
RUSCO -

Protection of Public Health <sup>2</sup>

Parameters	Units <sup>1</sup>	Residential		Industrial		Residential		Industrial		
		NC	NC	--	--	--	--	--	--	
<b>Metals</b>										
Aluminum	mg/kg	NC	NC	--	--	--	--	--	6390	6240
Antimony	mg/kg	NC	NC	--	--	--	--	--	0.75 J	0.77 J
Arsenic	mg/kg	16	16	--	--	--	--	--	7.6	7.7
Barium	mg/kg	350	10000	--	--	--	--	--	58.6	54.5
Beryllium	mg/kg	14	2700	--	--	--	--	--	0.45 J	0.44 J
Cadmium	mg/kg	2.5	60	--	--	--	--	--	0.70	0.81
Calcium	mg/kg	NC	NC	--	--	--	--	--	28400	43000
Chromium Total <sup>3</sup>	mg/kg	22	800	--	--	--	--	--	12.5	12.1
Cobalt	mg/kg	NC	NC	--	--	--	--	--	5.9 J	5.9 J
Copper	mg/kg	270	10000	--	--	--	--	--	29.9	29.5
Iron	mg/kg	NC	NC	--	--	--	--	--	17800	17600
Lead	mg/kg	400	3900	17.5	16.6	160	158	163	151	116
Magnesium	mg/kg	NC	NC	--	--	--	--	--	10600	10800
Manganese	mg/kg	2000	10000	--	--	--	--	--	356	348
Mercury	mg/kg	0.81	5.7	--	--	--	--	--	0.085	0.083
Nickel	mg/kg	140	10000	--	--	--	--	--	17.0	16.8
Potassium	mg/kg	NC	NC	--	--	--	--	--	982	832
Selenium	mg/kg	36	6800	--	--	--	--	--	0.65 U	0.62 U
Silver	mg/kg	36	6800	--	--	--	--	--	0.65 U	0.62 U
Sodium	mg/kg	NC	NC	--	--	--	--	--	646 U	37.3 J
Thallium	mg/kg	NC	NC	--	--	--	--	--	1.3 U	1.2 U
Vanadium	mg/kg	NC	NC	--	--	--	--	--	16.5	16.1
Zinc	mg/kg	2200	10000	--	--	--	--	--	222	217

**Wet Chemistry**

Cyanide (total)	mg/kg	27	10000	--	--	--	--	--	--	0.65 U	0.62 U
Total Solids	%	NC	NC	76.5	81.7	70.3	73.6	78.1	82.9	77.4	81.3

**Notes:**

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

<sup>3</sup> - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.1

**ANALYTICAL RESULTS SUMMARY - SURFACE SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

<i>On/Off-Site:</i>	<i>Off-Site</i>	<i>Off-Site</i>	<i>Off-Site</i>
<i>Location ID:</i>	66 Lester Street (SS-25)	66 Lester Street (SS-25)	66 Lester Street (SS-25)
<i>Sample Name:</i>	SS-37191-081308-CB-017	SS-37191-081308-CB-018	SS-37191-081308-CB-019
<i>Sample Date:</i>	8/13/2008	8/13/2008	8/13/2008
<i>Depth:</i>	0 - 2 inches bgs	2 - 4 inches bgs	2 - 4 inches bgs <i>Duplicate</i>

6 NYCRR Part 375-6.8(b):  
RUSCO -

Protection of Public Health <sup>2</sup>

<i>Parameters</i>	<i>Units</i> <sup>1</sup>	<i>Residential</i>	<i>Industrial</i>			
<b>Metals</b>						
Aluminum	mg/kg	NC	NC	8570	9590	7760
Antimony	mg/kg	NC	NC	0.88 J	1.4 J	0.58 J
Arsenic	mg/kg	16	16	10.5	12.4	9.8
Barium	mg/kg	350	10000	111	124	99.5
Beryllium	mg/kg	14	2700	0.58 J	0.66 J	0.52
Cadmium	mg/kg	2.5	60	1.1	1.2	0.95
Calcium	mg/kg	NC	NC	10600	14000	11100
Chromium Total <sup>3</sup>	mg/kg	22	800	19.5	22.2	17.8
Cobalt	mg/kg	NC	NC	6.6 J	7.5 J	6.0
Copper	mg/kg	270	10000	54.1	58.5	45.4
Iron	mg/kg	NC	NC	24600	26800	21100
Lead	mg/kg	400	3900	283	309	242
Magnesium	mg/kg	NC	NC	4710	6050	4470
Manganese	mg/kg	2000	10000	354	473	349
Mercury	mg/kg	0.81	5.7	0.22	0.28	0.22
Nickel	mg/kg	140	10000	20.1	22.2	17.8
Potassium	mg/kg	NC	NC	1510	1670	1210
Selenium	mg/kg	36	6800	0.83	1.1	0.67
Silver	mg/kg	36	6800	0.75 U	0.89 U	0.58 U
Sodium	mg/kg	NC	NC	29.2 J	40.8 J	18.1 J
Thallium	mg/kg	NC	NC	1.5 U	1.8 U	1.2 U
Vanadium	mg/kg	NC	NC	21.9	24.4	19.1
Zinc	mg/kg	2200	10000	276	305	224

**Wet Chemistry**

Cyanide (total)	mg/kg	27	10000	0.75 U	0.89 U	0.58 U
Total Solids	%	NC	NC	66.4	56.5	86.0

**Notes:**

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

<sup>3</sup> - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria.

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.2

**HERBICIDE, PCB, AND PESTICIDE ANALYTICAL RESULTS SUMMARY- SUBSURFACE SOIL**  
**BCP REMEDIAL SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE (NO. C915209)**  
**BUFFALO, NEW YORK**

Location ID:				MW-14	MW-17	SB-1-07	SB-12-07	SB-18-07	SB-18-08	SB-3-07	SB-5-07	SB-8-07
Sample Name:				SB-37191-050808-JP-011	SB-37191-050908-JP-002	SO-37191-072507-RN-SB-1	SO-37191-072607-RN-SB-12	SO-37191-073007-CB-SB18	SB-37191-050908-JP-001	SO-37191-072707-RN-SB-3	SO-37191-072507-RN-SB-05	SO-37191-072507-RN-SB-8
Sample Date:				5/8/2008	5/9/2008	7/25/2007	7/26/2007	7/30/2007	5/9/2008	7/27/2007	7/25/2007	7/25/2007
Depth:				0-2 ft BGS	0-2 ft BGS	2-4 ft BGS	3.5-6 ft BGS	4-7.2 ft BGS	0-2 ft BGS	10-13 ft BGS	4-8 ft BGS	3.5-8 ft BGS
On/Off - Site				Off-Site	On-Site	On-Site	On-Site	On-Site	Off-Site	On-Site	On-Site	On-Site
6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health <sup>2</sup>												
Parameters	Units <sup>1</sup>	Residential	Industrial									
<b>Herbicides</b>												
2,4,5-T	mg/kg	NC	NC	0.024 U	0.023 U	0.028 U	0.025 U	0.021 U	0.024 U	0.024 U	0.024 U	0.025 U
2,4,5-TP (Silvex)	mg/kg	58	1000	0.024 U	0.023 U	0.028 U	0.025 U	0.021 U	0.024 U	0.024 U	0.024 U	0.025 U
2,4-DB	mg/kg	NC	NC	0.098 U	0.092 U	0.11 U	0.099 U	0.083 U	0.097 U	0.095 U	0.097 U	0.098 U
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/kg	NC	NC	0.098 U	0.092 U	0.11 U	0.099 U	0.083 U	0.097 U	0.095 U	0.097 U	0.098 U
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg	NC	NC	9.8 U	9.2 U	11 U	9.9 U	8.3 U	9.7 U	9.5 U	9.7 U	9.8 U
Dalapon	mg/kg	NC	NC	0.11 U	0.1 U	0.12 U	0.11 U	0.093 U	0.11 U	0.11 U	0.11 U	0.11 U
Dicamba	mg/kg	NC	NC	0.049 U	0.046 U	0.055 U	0.05 U	0.042 U	0.049 U	0.048 U	0.048 U	0.049 U
Dichlorprop	mg/kg	NC	NC	0.098 U	0.092 U	0.11 U	0.099 U	0.083 U	0.097 U	0.095 U	0.097 U	0.098 U
Dimoseb	mg/kg	NC	NC	0.015 U	0.014 U	0.017 U	0.015 U	0.012 U	0.015 U	0.014 U	0.015 U	0.015 U
Mecoprop (MCPPT)	mg/kg	NC	NC	9.8 U	9.2 U	11 U	9.9 U	8.3 U	9.7 U	9.5 U	9.7 U	9.8 U
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	mg/kg	1 <sup>3</sup>	25 <sup>3</sup>	0.02 U	0.019 U	0.023 U	0.021 U	0.017 U	0.02 U	0.02 U	0.02 U	0.02 U
Aroclor-1221 (PCB-1221)	mg/kg	1 <sup>3</sup>	25 <sup>3</sup>	0.02 U	0.019 U	0.023 U	0.021 U	0.017 U	0.02 U	0.02 U	0.02 U	0.02 U
Aroclor-1232 (PCB-1232)	mg/kg	1 <sup>3</sup>	25 <sup>3</sup>	0.02 U	0.019 U	0.023 U	0.021 U	0.017 U	0.02 U	0.02 U	0.02 U	0.02 U
Aroclor-1242 (PCB-1242)	mg/kg	1 <sup>3</sup>	25 <sup>3</sup>	0.02 U	0.019 U	0.023 U	0.021 U	0.017 U	0.02 U	0.02 U	0.02 U	0.02 U
Aroclor-1248 (PCB-1248)	mg/kg	1 <sup>3</sup>	25 <sup>3</sup>	0.02 U	0.019 U	0.023 U	0.021 U	0.017 U	0.02 U	0.02 U	0.02 U	0.02 U
Aroclor-1254 (PCB-1254)	mg/kg	1 <sup>3</sup>	25 <sup>3</sup>	0.02 U	0.019 U	0.03	0.021 U	0.017 U	0.02 U	0.02 U	0.02 U	0.02 U
Aroclor-1260 (PCB-1260)	mg/kg	1 <sup>3</sup>	25 <sup>3</sup>	0.011 J	0.014 J	0.018 J	0.021 U	0.017 U	0.02 U	0.02 U	0.02 U	0.02 U
<b>Pesticides</b>												
4,4'-DDD	mg/kg	2.6	180	0.0021 U	0.0015 J	0.00085 J	0.0021 U	0.0018 U	0.0021 U	0.00055 J	0.0021 U	0.0021 U
4,4'-DDE	mg/kg	1.8	120	0.0046	0.002 U	0.002 J	0.0021 U	0.0018 U	0.0039	0.00052 J	0.0021 U	0.0021 U
4,4'-DDT	mg/kg	1.7	94	0.0035	0.002 U	0.0017 J	0.0021 U	0.0018 U	0.0068	0.002 U	0.0021 U	0.0021 U
Aldrin	mg/kg	0.019	1.4	0.0021 U	0.002 U	0.0021 J	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.00028 J	0.0021 U
alpha-BHC	mg/kg	0.097	6.8	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
alpha-Chlordane	mg/kg	0.91	47	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
beta-BHC	mg/kg	0.072	14	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
delta-BHC	mg/kg	100	1000	0.0021 U	0.002 U	0.00054 J	0.0021 U	0.0018 U	0.0021 U	0.00033 J	0.0021 U	0.0021 U
Dieldrin	mg/kg	0.039	2.8	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Endosulfan I	mg/kg	4.8	920	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Endosulfan II	mg/kg	4.8	920	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Endosulfan sulfate	mg/kg	4.8	920	0.0021 U	0.002 U	0.00077 J	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Endrin	mg/kg	2.2	410	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Endrin aldehyde	mg/kg	NC	NC	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Endrin ketone	mg/kg	NC	NC	0.00091 J	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
gamma-BHC (Lindane)	mg/kg	0.28	23	0.0021 U	0.017 J	0.0075	0.0021 U	0.0018 U	0.0021 U	0.00098 J	0.0021 U	0.0021 U
gamma-Chlordane	mg/kg	NC	NC	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Heptachlor	mg/kg	0.42	29	0.0021 U	0.0016 J	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Heptachlor epoxide	mg/kg	NC	NC	0.0021 U	0.002 U	0.0023 U	0.0021 U	0.0018 U	0.0021 U	0.002 U	0.0021 U	0.0021 U
Methoxychlor	mg/kg	NC	NC	0.004 U	0.0038 U	0.0035 J	0.0041 U	0.0034 U	0.004 U	0.0039 U	0.004 U	0.0041 U
Toxaphene	mg/kg	NC	NC	0.081 U	0.077 U	0.093 U	0.083 U	0.07 U	0.082 U	0.079 U	0.081 U	0.082 U

**Notes:**<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.<sup>3</sup> - The soil cleanup objective for total PCBs  
1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.



TABLE 6.3

**METALS ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	MW-14	MW-17	SB-10-07	SB-1-07	SB-11-07	SB-12-07	SB-13-07	SB-14-07
Sample Name:	SB-37191-050808-JP-011	SB-37191-050908-JP-002	SO-37191-072507-RN-SB-10	SO-37191-072507-RN-SB-1	SO-37191-072607-RN-SB-11	SO-37191-072607-RN-SB-12	SO-37191-072607-RN-SB-13	SO-37191-072607-RN-SB-14
Sample Date:	5/8/2008	5/9/2008	7/25/2007	7/25/2007	7/26/2007	7/26/2007	7/26/2007	7/26/2007
Depth:	0-2 ft BGS	0-2 ft BGS	3-8 ft BGS	2-4 ft BGS	2-6 ft BGS	3.5-6 ft BGS	6-8 ft BGS	4-8 ft BGS
On/Off - Site	Off-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site

6 NYCRR Part 375-6.8(b):

Restricted Use

Soil Cleanup Objectives

Protection of Public Health<sup>2</sup>

Parameters	Units <sup>1</sup>	Protection of Public Health <sup>2</sup>											
		Residential	Industrial										
<b>Metals</b>													
Aluminum	mg/kg	NC	NC	8680	18700	--	9270	--	11300	--	--	--	
Antimony	mg/kg	NC	NC	1.2 U	1.2 U	--	1.2 U	--	1.2 U	--	--	--	
Arsenic	mg/kg	16	16	5.1	5.2	--	11.4	--	4.2	--	--	--	
Barium	mg/kg	350	10000	47.0	200	--	103	--	107	--	--	--	
Beryllium	mg/kg	14	2700	0.49 U	2.9	--	2.0	--	0.79	--	--	--	
Cadmium	mg/kg	2.5	60	0.54 J	1.4 J	--	0.66 J	--	0.36 J	--	--	--	
Calcium	mg/kg	NC	NC	2200	110000	--	103000	--	89800	--	--	--	
Chromium, Total <sup>3</sup>	mg/kg	22	800	11.9	63.9	--	13.0	--	16.5	--	--	--	
Cobalt	mg/kg	NC	NC	3.8 J	2.6 J	--	6.1 J	--	7.8	--	--	--	
Copper	mg/kg	270	10000	11.9	35.3	--	60.8	--	18.5	--	--	--	
Iron	mg/kg	NC	NC	15300	27300	--	32300	--	17500	--	--	--	
Lead	mg/kg	400	3900	48.4 J	87.3 J	196	78.3	2160	8.2	7.3	4.4	4.4	
Magnesium	mg/kg	NC	NC	1950	15300	--	13700	--	15500	--	--	--	
Manganese	mg/kg	2000	10000	135 J	3240 J	--	712	--	343	--	--	--	
Mercury	mg/kg	0.81	5.7	0.16	0.035 J	--	0.45	--	0.041 U	--	--	--	
Nickel	mg/kg	140	10000	11.4	12.8	--	16.0	--	19.8	--	--	--	
Potassium	mg/kg	NC	NC	892	1350	--	1170	--	2320	--	--	--	
Selenium	mg/kg	36	6800	0.49 J	1.2	--	0.69 U	--	0.62 U	--	--	--	
Silver	mg/kg	36	6800	0.61 U	0.88	--	0.69 U	--	0.62 U	--	--	--	
Sodium	mg/kg	NC	NC	41.7 J	527 J	--	572 J	--	239 J	--	--	--	
Thallium	mg/kg	NC	NC	1.2 U	2.3 U	--	1.4 U	--	1.2 U	--	--	--	
Vanadium	mg/kg	NC	NC	19.3	24.3	--	11.6	--	22.1	--	--	--	
Zinc	mg/kg	2200	10000	71.7	169	--	107	--	46.2	--	--	--	
<b>Wet Chemistry</b>													
Cyanide (total)	mg/kg	27	10000	0.61 U	3.3	--	0.29 J	--	0.62 U	--	--	--	
Total Solids	%	NC	NC	81.8	86.9	85.1	72.4	75.1	80.5	81.6	87.3	87.3	

**Notes:**

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

<sup>3</sup> - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

**1.0 - Exceeds Criteria**

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.3

METALS ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

Location ID:	SB-15-07	SB-16-07	SB-17-07	SB-17-07	SB-18-07	SB-18-08	SB-2-07	SB-2-07
Sample Name:	SO-37191-072607-RN-SB-15	SO-37191-072607-RN-SB-16	SO-37191-072707-RN-SB-17	SO-37191-072707-RN-SB-27	SO-37191-073007-CB-SB18	SB-37191-050908-JP-001	SO-37191-072707-RN-SB-2	SO-37191-072707-RN-SB-20
Sample Date:	7/26/2007	7/26/2007	7/27/2007	7/27/2007	7/30/2007	5/9/2008	7/27/2007	7/27/2007
Depth:	4-8 ft BGS	4-8 ft BGS	6-10 ft BGS	6-10 ft BGS	4-7.2 ft BGS	0-2 ft BGS	6.5-8 ft BGS	6.5-8 ft BGS
On/Off - Site	On-Site	On-Site	On-Site	On-Site	On-Site	Off-Site	On-Site	On-Site
				Duplicate				Duplicate

6 NYCRR Part 375-6.8(b):  
Restricted Use  
Soil Cleanup Objectives  
Protection of Public Health<sup>2</sup>

Parameters	Units <sup>1</sup>	Protection of Public Health <sup>2</sup>									
		Residential	Industrial								
<b>Metals</b>											
Aluminum	mg/kg	NC	NC	--	--	--	6100	8000	--	--	
Antimony	mg/kg	NC	NC	--	--	--	1.0 U	1.2 U	--	--	
Arsenic	mg/kg	16	16	--	--	--	3.5	5.9	--	--	
Barium	mg/kg	350	10000	--	--	--	56.1	161	--	--	
Beryllium	mg/kg	14	2700	--	--	--	0.44 U	1.1	--	--	
Cadmium	mg/kg	2.5	60	--	--	--	0.24 J	1.1 J	--	--	
Calcium	mg/kg	NC	NC	--	--	--	92600	45000	--	--	
Chromium, Total <sup>3</sup>	mg/kg	22	800	--	--	--	9.8	23.5	--	--	
Cobalt	mg/kg	NC	NC	--	--	--	4.5 J	2.3 J	--	--	
Copper	mg/kg	270	10000	--	--	--	11.6	18.8	--	--	
Iron	mg/kg	NC	NC	--	--	--	12300	14200	--	--	
Lead	mg/kg	400	3900	10.5	94.8	155 J	6.2	104 J	229	567	
Magnesium	mg/kg	NC	NC	--	--	--	19100	5200	--	--	
Manganese	mg/kg	2000	10000	--	--	--	405	795 J	--	--	
Mercury	mg/kg	0.81	5.7	--	--	--	0.011 J	0.18	--	--	
Nickel	mg/kg	140	10000	--	--	--	10.9	8.4	--	--	
Potassium	mg/kg	NC	NC	--	--	--	1380	679	--	--	
Selenium	mg/kg	36	6800	--	--	--	0.52 U	0.51 J	--	--	
Silver	mg/kg	36	6800	--	--	--	0.061 J	0.26 J	--	--	
Sodium	mg/kg	NC	NC	--	--	--	192 J	296 J	--	--	
Thallium	mg/kg	NC	NC	--	--	--	1.0 U	1.2 U	--	--	
Vanadium	mg/kg	NC	NC	--	--	--	14.1	18.4	--	--	
Zinc	mg/kg	2200	10000	--	--	--	38.2	166	--	--	
<b>Wet Chemistry</b>											
Cyanide (total)	mg/kg	27	10000	--	--	--	0.18 J	0.95	--	--	
Total Solids	%	NC	NC	82.1	74.6	69.4	87.6	96.3	82.1	80.7	

Notes:

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

<sup>3</sup> - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.3

**METALS ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	SB-3-07	SB-4-07	SB-5-07	SB-6-07	SB-6-07	SB-7-07	SB-8-07	SB-9-07
Sample Name:	SO-37191-072707-RN-SB-3	SO-37191-072707-RN-SB-4	SO-37191-072507-RN-SB-05	SO-37191-073007-CB-SB6	SO-37191-073007-CB-SB19	SO-37191-072507-RN-SB-7	SO-37191-072507-RN-SB-8	SO-37191-072507-RN-SB-9
Sample Date:	7/27/2007	7/27/2007	7/25/2007	7/30/2007	7/30/2007	7/25/2007	7/25/2007	7/25/2007
Depth:	10-13 ft BGS	2-4 ft BGS	4-8 ft BGS	6-10.4 ft BGS	6-10.4 ft BGS	3-6 ft BGS	3.5-8 ft BGS	3-6 ft BGS
On/Off - Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site

Duplicate

6 NYCRR Part 375-6.8(b):

Restricted Use

Soil Cleanup Objectives

Protection of Public Health<sup>2</sup>

Parameters	Units <sup>1</sup>	Protection of Public Health <sup>2</sup>								
		Residential	Industrial							
<b>Metals</b>										
Aluminum	mg/kg	NC	NC	6270	--	15800	--	--	9450	--
Antimony	mg/kg	NC	NC	1.2 U	--	1.2 U	--	--	3.0	--
Arsenic	mg/kg	16	16	2.0	--	9.7	--	--	21.4	--
Barium	mg/kg	350	10000	59.1	--	132	--	--	2310	--
Beryllium	mg/kg	14	2700	0.57 U	--	1.3	--	--	0.85	--
Cadmium	mg/kg	2.5	60	0.20 J	--	0.37 J	--	--	1.4	--
Calcium	mg/kg	NC	NC	66900	--	2830	--	--	15500	--
Chromium, Total <sup>3</sup>	mg/kg	22	800	10.1	--	23.6	--	--	15.8	--
Cobalt	mg/kg	NC	NC	5.2 J	--	15.2	--	--	5.7 J	--
Copper	mg/kg	270	10000	13.2	--	31.2	--	--	114	--
Iron	mg/kg	NC	NC	11400	--	32500	--	--	23200	--
Lead	mg/kg	400	3900	6.3	285	14.5	6.2	5.1	46.0	2230
Magnesium	mg/kg	NC	NC	21100	--	6000	--	--	5730	--
Manganese	mg/kg	2000	10000	330	--	602	--	--	392	--
Mercury	mg/kg	0.81	5.7	0.049	--	0.022 J	--	--	0.48	--
Nickel	mg/kg	140	10000	10.6	--	35.1	--	--	13.8	--
Potassium	mg/kg	NC	NC	1580	--	1650	--	--	1060	--
Selenium	mg/kg	36	6800	1.2 U	--	1.2 U	--	--	0.86	--
Silver	mg/kg	36	6800	0.60 U	--	0.60 U	--	--	189	--
Sodium	mg/kg	NC	NC	220 J	--	275 J	--	--	179 J	--
Thallium	mg/kg	NC	NC	1.2 U	--	1.2 U	--	--	1.2 U	--
Vanadium	mg/kg	NC	NC	16.8	--	31.4	--	--	22.9	--
Zinc	mg/kg	2200	10000	40.2	--	80.4	--	--	305	--
<b>Wet Chemistry</b>										
Cyanide (total)	mg/kg	27	10000	0.60 U	--	0.60 U	--	--	0.23 J	--
Total Solids	%	NC	NC	83.8	81.0	82.7	89.9	89.1	62.6	81.4

**Notes:**

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

<sup>3</sup> - The Restricted Use Soil Cleanup Objective (RUSCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.

**1.0 - Exceeds Criteria**

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.4

VOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

Location ID:	MW-6A	MW-14	MW-17	MW-19	MW-19	MW-19A	MW-20	MW-20A	MW-21A	MW-22			
Sample Name:	SO-37191-052709-JJW-001	SB-37191-050808-JP-011	SB-37191-050908-JP-002	SO-37191-060409-JJW-008	SO-37191-060409-JJW-009	SO-37191-052709-JJW-002	SO-37191-060409-JJW-007	SO-37191-060109-JJW-003	SO-37191-060109-JJW-004	SO-37191-060809-JJW-004			
Sample Date:	5/27/2009	5/8/2008	5/9/2008	6/4/2009	6/4/2009	5/27/2009	6/4/2009	6/1/2009	6/1/2009	6/9/2009			
Depth:	6-8 ft BGS	0-2 ft BGS	0-2 ft BGS	6-8 ft BGS	6-8 ft BGS	6-8 ft BGS	2-4 ft BGS	6-8 ft BGS	2-4 ft BGS	10-12 ft BGS			
On/Off - Site	On-Site	Off-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	Off-Site			
						Duplicate							
6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health <sup>2</sup>													
Parameters	Units <sup>1</sup>	Residential	Industrial										
<b>Volatile Organic Compounds</b>													
1,1,1-Trichloroethane	mg/kg	100	1000	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,1,2,2-Tetrachloroethane	mg/kg	NC	NC	0.0063 UJ	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 UJ	0.0062 U	0.0061 U	0.0063 U	0.0057 UJ
1,1,2-Trichloroethane	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.29 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,1-Dichloroethane	mg/kg	19	480	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,1-Dichloroethene	mg/kg	100	1000	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,2,4-Trichlorobenzene	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 UJ	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 UJ	0.0062 UJ	0.0061 UJ	0.0063 UJ	0.0057 UJ
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,2-Dichlorobenzene	mg/kg	100	1000	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,2-Dichloroethane	mg/kg	2.3	60	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,2-Dichloropropane	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,3-Dichlorobenzene	mg/kg	17	560	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
1,4-Dichlorobenzene	mg/kg	9.8	250	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	100	1000	0.0063 UJ	0.0061 U	0.0058 U	0.24 J	0.26 J	0.29 U	0.0062 UJ	0.0061 U	0.0063 U	0.0057 U
2-Hexanone	mg/kg	NC	NC	0.0063 UJ	0.0061 U	0.0058 U	0.28 UJ	0.28 UJ	0.29 U	0.0062 UJ	0.0061 UJ	0.0063 UJ	0.0057 UJ
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	NC	NC	0.0063 UJ	0.0061 U	0.0058 U	0.28 UJ	0.28 UJ	0.29 U	0.0062 UJ	0.0061 U	0.0063 UJ	0.0057 UJ
Acetone	mg/kg	100	1000	0.011 J	0.024 UJ	0.023 UJ	1.1 UJ	1.1 UJ	1.2 UJ	0.025 UJ	0.024 UJ	0.025 UJ	0.023 UJ
Benzene	mg/kg	2.9	89	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Bromodichloromethane	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Bromoform	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Bromomethane (Methyl Bromide)	mg/kg	NC	NC	0.0063 UJ	0.0061 UJ	0.0058 UJ	0.28 UJ	0.28 UJ	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 UJ
Carbon disulfide	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Carbon tetrachloride	mg/kg	1.4	44	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Chlorobenzene	mg/kg	100	1000	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Chloroethane	mg/kg	NC	NC	0.0063 U	0.0061 UJ	0.0058 UJ	0.28 UJ	0.28 UJ	0.29 U	0.0062 UJ	0.0061 UJ	0.0063 UJ	0.0057 UJ
Chloroform (Trichloromethane)	mg/kg	10	700	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Chloromethane (Methyl Chloride)	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
cis-1,2-Dichloroethene	mg/kg	59	1000	0.029	0.0063 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
cis-1,3-Dichloropropene	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 UJ	0.0063 UJ	0.0057 UJ
Cyclohexane	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Dibromochloromethane	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 UJ	0.0063 UJ	0.0057 UJ
Dichlorodifluoromethane (CFC-12)	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 UJ	0.0061 UJ	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 UJ
Ethylbenzene	mg/kg	30	780	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Isopropylbenzene	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Methyl acetate	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 UJ	0.28 UJ	0.29 UJ	0.0062 UJ	0.0061 UJ	0.0063 UJ	0.0057 UJ
Methyl cyclohexane	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Methyl Tert Butyl Ether	mg/kg	62	1000	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Methylene chloride	mg/kg	51	1000	0.0063 U	0.031	0.0097	0.28 U	0.29 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Styrene	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Tetrachloroethene	mg/kg	5.5	300	0.0063 U	0.0061 U	0.0058 U	0.046 J	0.053 J	0.078 J	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Toluene	mg/kg	100	1000	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
trans-1,2-Dichloroethene	mg/kg	100	1000	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
trans-1,3-Dichloropropene	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Trichloroethene	mg/kg	10	400	0.021	0.0061 U	0.0058 U	1.8	1.3	4.6	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Trichlorofluoromethane (CFC-11)	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 UJ	0.28 UJ	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Trifluorotrchloroethane (Freon 113)	mg/kg	NC	NC	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Vinyl chloride	mg/kg	0.21	27	0.0063 U	0.0061 U	0.0058 U	0.28 U	0.28 U	0.29 U	0.0062 U	0.0061 U	0.0063 U	0.0057 U
Xylene (total)	mg/kg	100	1000	0.019 U	0.018 U	0.017 U	0.83 U	0.83 U	0.88 U	0.019 U	0.018 U	0.019 U	0.017 U

## Notes:

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.4

VOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

Location ID:	MW-22A	MW-23A	MW-24A	MW-25	MW-25A	SB-10-07	SB-1-07	SB-11-07	SB-12-07			
Sample Name:	SO-37191-060109-JJW-005	SO-37191-060209-JJW-006	SO-37191-062209-JJW-011	SO-37191-062209-JJW-013	SO-37191-062209-JJW-012	SO-37191-072507-RN-SB-10	SO-37191-072507-RN-SB-1	SO-37191-072607-RN-SB-11	SO-37191-072607-RN-SB-12			
Sample Date:	6/1/2009	6/2/2009	6/22/2009	6/22/2009	6/22/2009	7/25/2007	7/25/2007	7/26/2007	7/26/2007			
Depth:	10-12 ft BGS	12-14 ft BGS	0-2 ft BGS	6-8 ft BGS	4-6 ft BGS	3-8 ft BGS	2-4 ft BGS	2-6 ft BGS	3.5-6 ft BGS			
On/Off - Site	Off-Site	Off-Site	Off-Site	Off-Site	Off-Site	On-Site	On-Site	On-Site	On-Site			
6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health <sup>2</sup>												
Parameters	Units <sup>1</sup>	Residential	Industrial									
<b>Volatile Organic Compounds</b>												
1,1,1-Trichloroethane	mg/kg	100	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,1,2,2-Tetrachloroethane	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,1,2-Trichloroethane	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,1-Dichloroethane	mg/kg	19	480	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,1-Dichloroethene	mg/kg	100	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,2,4-Trichlorobenzene	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	NC	NC	0.0061 UJ	0.0059 UJ	0.0065 UJ	0.0055 UJ	0.006 UJ	0.0059 UJ	0.0069 UJ	0.0067 UJ	0.0062 UJ
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,2-Dichlorobenzene	mg/kg	100	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,2-Dichloroethane	mg/kg	2.3	60	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,2-Dichloropropane	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,3-Dichlorobenzene	mg/kg	17	560	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
1,4-Dichlorobenzene	mg/kg	9.8	250	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	100	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
2-Hexanone	mg/kg	NC	NC	0.0061 UJ	0.0059 UJ	0.0065 UJ	0.0055 UJ	0.006 UJ	0.0059 UJ	0.0069 UJ	0.0067 UJ	0.0062 UJ
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Acetone	mg/kg	100	1000	0.024 UJ	0.024 UJ	0.026 UJ	0.022 UJ	0.024 UJ	0.021 J	0.022 UJ	0.022 UJ	0.028 J
Benzene	mg/kg	2.9	89	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Bromodichloromethane	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Bromoform	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 UJ	0.0069 UJ	0.0067 UJ	0.0062 UJ
Bromomethane (Methyl Bromide)	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 UJ	0.0069 UJ	0.0067 UJ	0.0062 UJ
Carbon disulfide	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Carbon tetrachloride	mg/kg	1.4	44	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Chlorobenzene	mg/kg	100	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Chloroethane	mg/kg	NC	NC	0.0061 UJ	0.0059 UJ	0.0065 UJ	0.0055 UJ	0.006 UJ	0.0059 UJ	0.0069 UJ	0.0067 UJ	0.0062 UJ
Chloroform (Trichloromethane)	mg/kg	10	700	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Chloromethane (Methyl Chloride)	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
cis-1,2-Dichloroethene	mg/kg	59	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.035	0.031
cis-1,3-Dichloropropene	mg/kg	NC	NC	0.0061 UJ	0.0059 UJ	0.0065 UJ	0.0055 UJ	0.006 UJ	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Cyclohexane	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Dibromochloromethane	mg/kg	NC	NC	0.0061 UJ	0.0059 UJ	0.0065 UJ	0.0055 UJ	0.006 UJ	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Dichlorodifluoromethane (CFC-12)	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Ethylbenzene	mg/kg	30	780	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Isopropylbenzene	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Methyl acetate	mg/kg	NC	NC	0.0061 UJ	0.0059 UJ	0.0065 UJ	0.0055 UJ	0.006 UJ	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Methyl cyclohexane	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Methyl Tert Butyl Ether	mg/kg	62	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Methylene chloride	mg/kg	51	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Styrene	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Tetrachloroethene	mg/kg	5.5	300	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.037	0.062 U
Toluene	mg/kg	100	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
trans-1,2-Dichloroethene	mg/kg	100	1000	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
trans-1,3-Dichloropropene	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Trichloroethane	mg/kg	10	400	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.21	0.035
Trichlorofluoromethane (CFC-11)	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 UJ	0.0069 UJ	0.0067 UJ	0.0062 UJ
Trifluorotrchloroethane (Freon 113)	mg/kg	NC	NC	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Vinyl chloride	mg/kg	0.21	27	0.0061 U	0.0059 U	0.0065 U	0.0055 U	0.006 U	0.0059 U	0.0069 U	0.0067 U	0.0062 U
Xylene (total)	mg/kg	100	1000	0.018 U	0.018 U	0.02 U	0.017 U	0.018 U	0.018 U	0.021 U	0.02 U	0.019 U

## Notes:

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.4

VOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

Location ID:	SB-13-07	SB-14-07	SB-15-07	SB-16-07	SB-17-07	SB-17-07	SB-18-07	SB-18-08	SB-2-07			
Sample Name:	SO-37191-072607-RN-SB-13	SO-37191-072607-RN-SB-14	SO-37191-072607-RN-SB-15	SO-37191-072607-RN-SB-16	SO-37191-072607-RN-SB-17	SO-37191-072607-RN-SB-27	SO-37191-073007-CB-SB18	SB-37191-050908-JP-001	SO-37191-072707-RN-SB-2			
Sample Date:	7/26/2007	7/26/2007	7/26/2007	7/26/2007	7/27/2007	7/27/2007	7/27/2007	5/9/2008	7/27/2007			
Depth:	6-8 ft BGS	4-8 ft BGS	4-8 ft BGS	4-8 ft BGS	6-10 ft BGS	6-10 ft BGS	4-7.2 ft BGS	0-2 ft BGS	6.5-8 ft BGS			
On/Off - Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	Off-Site	On-Site			
						Duplicate						
6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health <sup>2</sup>												
Parameters	Units <sup>1</sup>	Residential	Industrial									
<b>Volatile Organic Compounds</b>												
1,1,1-Trichloroethane	mg/kg	100	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,1,2,2-Tetrachloroethane	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,1,2-Trichloroethane	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,1-Dichloroethane	mg/kg	19	480	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,1-Dichloroethene	mg/kg	100	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0019 J	0.0052 U	0.0061 U	0.0062 U
1,2,4-Trichlorobenzene	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,2-Dichlorobenzene	mg/kg	100	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,2-Dichloroethane	mg/kg	2.3	60	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,2-Dichloropropane	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,3-Dichlorobenzene	mg/kg	17	560	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
1,4-Dichlorobenzene	mg/kg	9.8	250	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	100	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
2-Hexanone	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Acetone	mg/kg	100	1000	0.1 J	0.023 UJ	0.024 UJ	0.027 UJ	0.029 UJ	0.023 UJ	0.021 UJ	0.024 UJ	0.025 UJ
Benzene	mg/kg	2.9	89	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Bromodichloromethane	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Bromoform	mg/kg	NC	NC	0.31 U	0.0057 UJ	0.0061 UJ	0.0067 UJ	0.0072 UJ	0.0057 UJ	0.0052 UJ	0.0061 UJ	0.0062 UJ
Bromomethane (Methyl Bromide)	mg/kg	NC	NC	0.31 U	0.0057 UJ	0.0061 UJ	0.0067 UJ	0.0072 UJ	0.0057 UJ	0.0052 UJ	0.0061 UJ	0.0062 UJ
Carbon disulfide	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Carbon tetrachloride	mg/kg	1.4	44	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Chlorobenzene	mg/kg	100	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Chloroethane	mg/kg	NC	NC	0.31 U	0.0057 UJ	0.0061 UJ	0.0067 UJ	0.0072 UJ	0.0057 UJ	0.0052 UJ	0.0061 UJ	0.0062 UJ
Chloroform (Trichloromethane)	mg/kg	10	700	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Chloromethane (Methyl Chloride)	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
cis-1,2-Dichloroethene	mg/kg	59	1000	0.71	0.0057 U	0.0061 U	0.0067 U	0.19	0.23	0.0052 U	0.0061 U	0.0062 U
cis-1,3-Dichloropropene	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Cyclohexane	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Dibromochloromethane	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Dichlorodifluoromethane (CFC-12)	mg/kg	NC	NC	0.31 UJ	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Ethylbenzene	mg/kg	30	780	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0025 J	0.0052 U	0.0061 U	0.0062 U
Isopropylbenzene	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Methyl acetate	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Methyl cyclohexane	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Methyl Tert Butyl Ether	mg/kg	62	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Methylene chloride	mg/kg	51	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.011	0.0062 U
Styrene	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Tetrachloroethene	mg/kg	5.5	300	0.13 J	0.0057 U	0.0061 U	0.0025 J	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Toluene	mg/kg	100	1000	0.15 J	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
trans-1,2-Dichloroethene	mg/kg	100	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0048 J	0.0048 J	0.0052 U	0.0061 U	0.0062 U
trans-1,3-Dichloropropene	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Trichloroethene	mg/kg	10	400	9.7	0.0022 J	0.037	0.008	0.14 J	0.13	0.0052 U	0.0061 U	0.0019 J
Trichlorofluoromethane (CFC-11)	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 UJ	0.0057 UJ	0.0052 U	0.0061 U	0.0062 U
Trifluorotrchloroethane (Freon 113)	mg/kg	NC	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0072 U	0.0057 U	0.0052 U	0.0061 U	0.0062 U
Vinyl chloride	mg/kg	0.21	27	0.31 U	0.0057 U	0.0061 U	0.0067 U	0.0081	0.017	0.0052 U	0.0061 U	0.0062 U
Xylene (total)	mg/kg	100	1000	0.92 U	0.017 U	0.018 U	0.02 U	0.022 U	0.0077 J	0.016 U	0.018 U	0.019 U

## Notes:

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.4

VOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

Location ID:	SB-2-07	SB-3-07	SB-4-07	SB-5-07	SB-6-07	SB-6-07	SB-6-07	SB-7-07	SB-8-07	SB-9-07			
Sample Name:	SO-37191-072707-RN-SB-20	SO-37191-072707-RN-SB-3	SO-37191-072707-RN-SB-4	SO-37191-072507-RN-SB-05	SO-37191-073007-CB-SB6	SO-37191-073007-CB-SB19	SO-37191-072507-RN-SB-7	SO-37191-072507-RN-SB-8	SO-37191-072507-RN-SB-9	SO-37191-072507-RN-SB-9			
Sample Date:	7/27/2007	7/27/2007	7/27/2007	7/25/2007	7/30/2007	7/30/2007	7/25/2007	7/25/2007	7/25/2007	7/25/2007			
Depth:	6.5-8 ft BGS	10-13 ft BGS	2-4 ft BGS	4-8 ft BGS	6-10.4 ft BGS	6-10.4 ft BGS	3-6 ft BGS	3.5-8 ft BGS	3-6 ft BGS	3-6 ft BGS			
On/Off - Site	On-Site Duplicate	On-Site	On-Site	On-Site	On-Site	On-Site Duplicate	On-Site	On-Site	On-Site	On-Site			
6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health <sup>2</sup>													
Parameters	Units <sup>1</sup>	Residential		Industrial		Residential		Industrial		Residential		Industrial	
		1	2	3	4	5	6	7	8	9	10	11	12
<b>Volatile Organic Compounds</b>													
1,1,1-Trichloroethane	mg/kg	100	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
1,1,2,2-Tetrachloroethane	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
1,1,2-Trichloroethane	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
1,1-Dichloroethane	mg/kg	19	480	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
1,1-Dichloroethene	mg/kg	100	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
1,2,4-Trichlorobenzene	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
1,2-Dichlorobenzene	mg/kg	100	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
1,2-Dichloroethane	mg/kg	2.3	60	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
1,2-Dichloropropane	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
1,3-Dichlorobenzene	mg/kg	17	560	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
1,4-Dichlorobenzene	mg/kg	9.8	250	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	100	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.12 J	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
2-Hexanone	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Acetone	mg/kg	100	1000	0.023 J	0.024 UJ	0.025 U	0.024 U	1.1 U	1.1 U	1.6 UJ	0.025 UJ	0.024 U	0.024 U
Benzene	mg/kg	2.9	89	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Bromodichloromethane	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Bromoform	mg/kg	NC	NC	0.0067 UJ	0.006 UJ	0.0062 UJ	0.006 UJ	0.28 U	0.28 U	0.4 U	0.0061 UJ	0.0061 UJ	0.0061 UJ
Bromomethane (Methyl Bromide)	mg/kg	NC	NC	0.0067 UJ	0.006 UJ	0.0062 UJ	0.006 UJ	0.28 U	0.28 U	0.4 U	0.0061 UJ	0.0061 UJ	0.0061 UJ
Carbon disulfide	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Carbon tetrachloride	mg/kg	1.4	44	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Chlorobenzene	mg/kg	100	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Chloroethane	mg/kg	NC	NC	0.0067 UJ	0.006 UJ	0.0062 UJ	0.006 UJ	0.28 U	0.28 U	0.4 U	0.0061 UJ	0.0061 UJ	0.0061 UJ
Chloroform (Trichloromethane)	mg/kg	10	700	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Chloromethane (Methyl Chloride)	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
cis-1,2-Dichloroethene	mg/kg	59	1000	0.0067 U	0.006 U	0.0062 U	0.012	0.091 J	0.066 J	0.3 J	0.028 J	0.025	0.025
cis-1,3-Dichloropropene	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Cyclohexane	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Dibromochloromethane	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Dichlorodifluoromethane (CFC-12)	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 UJ	0.0061 U	0.0061 U	0.0061 U
Ethylbenzene	mg/kg	30	780	0.0067 U	0.006 U	0.0062 U	0.006 U	0.2 J	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Isopropylbenzene	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Methyl acetate	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Methyl cyclohexane	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Methyl Tert Butyl Ether	mg/kg	62	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Methylene chloride	mg/kg	51	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.38 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Styrene	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Tetrachloroethene	mg/kg	5.5	300	0.0067 U	0.0017 J	0.0062 U	0.006 U	0.18 J	0.086 J	0.4 U	0.0061 U	0.0061 U	0.0061 U
Toluene	mg/kg	100	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.4	0.079 J	0.4 U	0.0061 U	0.0061 U	0.0061 U
trans-1,2-Dichloroethene	mg/kg	100	1000	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
trans-1,3-Dichloropropene	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Trichloroethene	mg/kg	10	400	0.0067 U	0.006 U	0.0062 U	0.083	0.51	0.5	6.8	0.058	0.076	0.076
Trichlorofluoromethane (CFC-11)	mg/kg	NC	NC	0.0067 UJ	0.006 U	0.0062 UJ	0.006 UJ	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 UJ	0.0061 UJ
Trifluorotrichloroethane (Freon 113)	mg/kg	NC	NC	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Vinyl chloride	mg/kg	0.21	27	0.0067 U	0.006 U	0.0062 U	0.006 U	0.28 U	0.28 U	0.4 U	0.0061 U	0.0061 U	0.0061 U
Xylene (total)	mg/kg	100	1000	0.02 U	0.018 U	0.019 U	0.018 U	0.79 J	0.84 U	1.2 U	0.018 U	0.018 U	0.018 U

Notes:

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

Location ID:	MW-14	MW-17	SB-10-07	SB-1-07	SB-11-07	SB-12-07	SB-13-07
Sample Name:	SB-37191-050808-JP-011	SB-37191-050908-JP-002	SO-37191-072507-RN-SB-10	SO-37191-072507-RN-SB-1	SO-37191-072607-RN-SB-11	SO-37191-072607-RN-SB-12	SO-37191-072607-RN-SB-13
Sample Date:	5/8/2008	5/9/2008	7/25/2007	7/25/2007	7/26/2007	7/26/2007	7/26/2007
Depth:	0-2 ft BGS	0-2 ft BGS	3-8 ft BGS	2-4 ft BGS	2-6 ft BGS	3.5-6 ft BGS	6-8 ft BGS
On/Off - Site	Off-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site
6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health <sup>2</sup>							
Parameters	Units <sup>1</sup>	Residential		Industrial			
<b>Semivolatile Organic Compounds</b>							
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NC	NC	0.082 U	0.077 U	0.079 U	0.093 U
2,4,5-Trichlorophenol	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
2,4,6-Trichlorophenol	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
2,4-Dichlorophenol	mg/kg	NC	NC	0.082 U	0.077 U	0.079 U	0.089 U
2,4-Dimethylphenol	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
2,4-Dinitrophenol	mg/kg	NC	NC	2 U	1.9 U	2 UJ	2.3 UJ
2,4-Dinitrotoluene	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
2,6-Dinitrotoluene	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
2-Chloronaphthalene	mg/kg	NC	NC	0.082 U	0.077 U	0.079 U	0.093 U
2-Chlorophenol	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
2-Methylnaphthalene	mg/kg	NC	NC	0.022 J	0.17	0.079 U	0.076 J
2-Methylphenol	mg/kg	100	1000	0.4 U	0.38 U	0.39 U	0.41 U
2-Nitroaniline	mg/kg	NC	NC	2 U	1.9 U	2 U	2.3 U
2-Nitrophenol	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
3,3'-Dichlorobenzidine	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
3-Nitroaniline	mg/kg	NC	NC	2 U	1.9 U	2 U	2.3 U
4,6-Dinitro-2-methylphenol	mg/kg	NC	NC	1.9 U	1.8 U	1.8 U	2.2 U
4-Bromophenyl phenyl ether	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
4-Chloro-3-methylphenol	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
4-Chloroaniline	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
4-Chlorophenyl phenyl ether	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
4-Methylphenol	mg/kg	34	1000	0.4 U	0.38 U	0.39 U	0.41 U
4-Nitroaniline	mg/kg	NC	NC	2 U	1.9 U	2 U	2.3 U
4-Nitrophenol	mg/kg	NC	NC	2 U	1.9 U	2 U	2.3 U
Acenaphthene	mg/kg	100	1000	0.082 U	0.11	0.079 U	0.093 U
Acenaphthylene	mg/kg	100	1000	0.047 J	0.96	0.079 U	0.093 U
Acetophenone	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
Anthracene	mg/kg	100	1000	0.062 J	1.4	0.028 J	0.093 U
Atrazine	mg/kg	NC	NC	0.4 U	0.38 U	0.39 UJ	0.46 UJ
Benzaldehyde	mg/kg	NC	NC	0.4 U	0.38 U	0.39 UJ	0.46 UJ
Benzo(a)anthracene	mg/kg	1	11	0.26	3.7	0.09	0.061 J
Benzo(a)pyrene	mg/kg	1	1.1	0.26	2.8	0.085	0.047 J
Benzo(b)fluoranthene	mg/kg	1	11	0.51	5	0.11	0.044 J
Benzo(g,h,i)perylene	mg/kg	100	1000	0.15	2.1	0.085	0.081 J
Benzo(k)fluoranthene	mg/kg	1	110	0.082 U	0.077 U	0.045 J	0.022 J
Biphenyl (1,1-Biphenyl)	mg/kg	NC	NC	0.4 U	0.057 J	0.39 U	0.46 U
bis(2-Chloroethoxy)methane	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
bis(2-Chloroethyl)ether	mg/kg	NC	NC	0.082 U	0.077 U	0.093 U	0.089 U
bis(2-Ethylhexyl)phthalate	mg/kg	NC	NC	0.4 U	0.72	0.087 J	0.46 U
Butyl benzylphthalate	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.41 U
Caprolactam	mg/kg	NC	NC	0.085 J	0.38 U	0.39 U	0.41 U
Carbazole	mg/kg	NC	NC	0.031 J	0.4	0.079 U	0.093 U
Chrysene	mg/kg	1	110	0.31	2.9	0.087	0.7
Dibenz(a,h)anthracene	mg/kg	0.33	1.1	0.04 J	0.66	0.079 U	0.093 U
Dibenzofuran	mg/kg	14	1000	0.4 U	0.37 J	0.39 U	0.036 J
Diethyl phthalate	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.54
Dimethyl phthalate	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U
Di-n-butylphthalate	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U
Di-n-octyl phthalate	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U
Fluoranthene	mg/kg	100	1000	0.52	7.1	0.15	0.11



TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

Location ID:	MW-14	MW-17	SB-10-07	SB-1-07	SB-11-07	SB-12-07	SB-13-07
Sample Name:	SB-37191-050808-JP-011	SB-37191-050908-JP-002	SO-37191-072507-RN-SB-10	SO-37191-072507-RN-SB-1	SO-37191-072607-RN-SB-11	SO-37191-072607-RN-SB-12	SO-37191-072607-RN-SB-13
Sample Date:	5/8/2008	5/9/2008	7/25/2007	7/25/2007	7/26/2007	7/26/2007	7/26/2007
Depth:	0-2 ft BGS	0-2 ft BGS	3-8 ft BGS	2-4 ft BGS	2-6 ft BGS	3.5-6 ft BGS	6-8 ft BGS
On/Off - Site	Off-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site

6 NYCRR Part 375-6.8(b):  
Restricted Use  
Soil Cleanup Objectives  
Protection of Public Health<sup>2</sup>

Parameters	Units <sup>1</sup>	Protection of Public Health <sup>2</sup>								
		Residential	Industrial							
Fluorene	mg/kg	100	1000	0.082 U	0.36	0.079 U	0.093 U	0.034 J	0.083 U	0.082 U
Hexachlorobenzene	mg/kg	0.33	12	0.082 U	0.077 U	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
Hexachlorobutadiene	mg/kg	NC	NC	0.082 U	0.077 U	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
Hexachlorocyclopentadiene	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Hexachloroethane	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	11	0.14	2.1	0.076 J	0.055 J	0.55	0.083 U	0.082 U
Isophorone	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Naphthalene	mg/kg	100	1000	0.023 J	0.15	0.079 U	0.041 J	0.024 J	0.083 U	0.082 U
Nitrobenzene	mg/kg	NC	NC	0.082 U	0.077 U	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
N-Nitrosodi-n-propylamine	mg/kg	NC	NC	0.082 U	0.077 U	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
N-Nitrosodiphenylamine	mg/kg	NC	NC	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Pentachlorophenol	mg/kg	2.4	55	0.4 U	0.38 U	0.39 U	0.46 U	0.44 U	0.41 U	0.4 U
Phenanthrene	mg/kg	100	1000	0.22	4.4	0.1	0.15	0.6	0.083 U	0.082 U
Phenol	mg/kg	100	1000	0.082 U	0.077 U	0.079 U	0.093 U	0.089 U	0.083 U	0.082 U
Pyrene	mg/kg	100	1000	0.37	5.1	0.13	0.12	1.3	0.083 U	0.082 U

Notes:

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

Location ID:	SB-14-07	SB-15-07	SB-16-07	SB-17-07	SB-17-07	SB-18-07	SB-18-08
Sample Name:	SO-37191-072607-RN-SB-14	SO-37191-072607-RN-SB-15	SO-37191-072607-RN-SB-16	SO-37191-072707-RN-SB-17	SO-37191-072707-RN-SB-17	SO-37191-073007-CB-SB18	SB-37191-050908-JP-001
Sample Date:	7/26/2007	7/26/2007	7/26/2007	7/27/2007	7/27/2007	7/30/2007	5/9/2008
Depth:	4-8 ft BGS	4-8 ft BGS	4-8 ft BGS	6-10 ft BGS	6-10 ft BGS	4-7.2 ft BGS	0-2 ft BGS
On/Off - Site	On-Site	On-Site	On-Site	On-Site	On-Site	Off-Site	On-Site
					Duplicate		
6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health <sup>2</sup>							
Parameters	Units <sup>1</sup>	Residential	Industrial				
<b>Semivolatile Organic Compounds</b>							
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.16 U
2,4,5-Trichlorophenol	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
2,4,6-Trichlorophenol	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
2,4-Dichlorophenol	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.16 U
2,4-Dimethylphenol	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
2,4-Dinitrophenol	mg/kg	NC	NC	1.9 UJ	2 UJ	2.2 UJ	4 U
2,4-Dinitrotoluene	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
2,6-Dinitrotoluene	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
2-Chloronaphthalene	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.16 U
2-Chlorophenol	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
2-Methylnaphthalene	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.16 U
2-Methylphenol	mg/kg	100	1000	0.38 U	0.4 U	0.44 U	0.79 U
2-Nitroaniline	mg/kg	NC	NC	1.9 U	2 U	2.2 U	4 U
2-Nitrophenol	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
3,3'-Dichlorobenzidine	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
3-Nitroaniline	mg/kg	NC	NC	1.9 U	2 U	2.2 U	4 U
4,6-Dinitro-2-methylphenol	mg/kg	NC	NC	1.8 U	1.9 U	2.1 U	3.8 U
4-Bromophenyl phenyl ether	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
4-Chloro-3-methylphenol	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
4-Chloroaniline	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
4-Chlorophenyl phenyl ether	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
4-Methylphenol	mg/kg	34	1000	0.38 U	0.4 U	0.44 U	0.79 U
4-Nitroaniline	mg/kg	NC	NC	1.9 U	2 U	2.2 U	4 U
4-Nitrophenol	mg/kg	NC	NC	1.9 U	2 U	2.2 U	4 U
Acenaphthene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.16 U
Acenaphthylene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.16 U
Acetophenone	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
Anthracene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.16 U
Atrazine	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
Benzaldehyde	mg/kg	NC	NC	0.38 UJ	0.4 UJ	0.44 UJ	0.79 U
Benzo(a)anthracene	mg/kg	1	11	0.077 U	0.082 U	0.09 U	0.23
Benzo(a)pyrene	mg/kg	1	1.1	0.077 U	0.082 U	0.09 U	0.21
Benzo(b)fluoranthene	mg/kg	1	11	0.077 U	0.082 U	0.09 U	0.35
Benzo(g,h,i)perylene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.14 J
Benzo(k)fluoranthene	mg/kg	1	110	0.077 U	0.082 U	0.09 U	0.16 U
Biphenyl (1,1-Biphenyl)	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
bis(2-Chloroethoxy)methane	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
bis(2-Chloroethyl)ether	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.16 U
bis(2-Ethylhexyl)phthalate	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.2 J
Butyl benzylphthalate	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
Caprolactam	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
Carbazole	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.059 J
Chrysene	mg/kg	1	110	0.077 U	0.082 U	0.09 U	0.21
Dibenz(a,h)anthracene	mg/kg	0.33	1.1	0.077 U	0.082 U	0.09 U	0.16 U
Dibenzofuran	mg/kg	14	1000	0.38 U	0.4 U	0.44 U	0.79 U
Diethyl phthalate	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
Dimethyl phthalate	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
Di-n-butylphthalate	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
Di-n-octyl phthalate	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.79 U
Fluoranthene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.42

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

Location ID:	SB-14-07	SB-15-07	SB-16-07	SB-17-07	SB-17-07	SB-17-07	SB-18-07	SB-18-08
Sample Name:	SO-37191-072607-RN-SB-14	SO-37191-072607-RN-SB-15	SO-37191-072607-RN-SB-16	SO-37191-072707-RN-SB-17	SO-37191-072707-RN-SB-17	SO-37191-072707-RN-SB-27	SO-37191-073007-CB-SB18	SB-37191-050908-JP-001
Sample Date:	7/26/2007	7/26/2007	7/26/2007	7/27/2007	7/27/2007	7/27/2007	7/30/2007	5/9/2008
Depth:	4-8 ft BGS	4-8 ft BGS	4-8 ft BGS	6-10 ft BGS	6-10 ft BGS	6-10 ft BGS	4-7.2 ft BGS	0-2 ft BGS
On/Off - Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	Off-Site	On-Site

6 NYCRR Part 375-6.8(b):  
Restricted Use  
Soil Cleanup Objectives  
Protection of Public Health<sup>2</sup>

Parameters	Units <sup>1</sup>	Protection of Public Health <sup>2</sup>								
		Residential	Industrial							
Fluorene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
Hexachlorobenzene	mg/kg	0.33	12	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
Hexachlorobutadiene	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
Hexachlorocyclopentadiene	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Hexachloroethane	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	11	0.077 U	0.082 U	0.09 U	0.042 J	0.076 U	0.07 U	0.13 J
Isophorone	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Naphthalene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
Nitrobenzene	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
N-Nitrosodi-n-propylamine	mg/kg	NC	NC	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
N-Nitrosodiphenylamine	mg/kg	NC	NC	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Pentachlorophenol	mg/kg	2.4	55	0.38 U	0.4 U	0.44 U	0.48 U	0.38 U	0.34 U	0.79 U
Phenanthrene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.081 J	0.076 U	0.07 U	0.23
Phenol	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.097 U	0.076 U	0.07 U	0.16 U
Pyrene	mg/kg	100	1000	0.077 U	0.082 U	0.09 U	0.12	0.076 U	0.046 J	0.34

Notes:

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

Location ID:	SB-2-07	SB-2-07	SB-3-07	SB-4-07	SB-5-07	SB-6-07	SB-6-07			
Sample Name:	SO-37191-072707-RN-SB-2	SO-37191-072707-RN-SB-20	SO-37191-072707-RN-SB-3	SO-37191-072707-RN-SB-4	SO-37191-072507-RN-SB-05	SO-37191-073007-CB-SB6	SO-37191-073007-CB-SB19			
Sample Date:	7/27/2007	7/27/2007	7/27/2007	7/27/2007	7/25/2007	7/30/2007	7/30/2007			
Depth:	6.5-8 ft BGS	6.5-8 ft BGS	10-13 ft BGS	2-4 ft BGS	4-8 ft BGS	6-10.4 ft BGS	6-10.4 ft BGS			
On/Off - Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site			
		Duplicate				Duplicate				
	6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health <sup>2</sup>									
Parameters	Units <sup>1</sup>	Residential	Industrial							
Semivolatile Organic Compounds										
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NC	NC	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
2,4,5-Trichlorophenol	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
2,4,6-Trichlorophenol	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
2,4-Dichlorophenol	mg/kg	NC	NC	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
2,4-Dimethylphenol	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
2,4-Dinitrophenol	mg/kg	NC	NC	4.1 UJ	4.4 UJ	2 UJ	2.1 UJ	2 UJ	1.9 UJ	1.9 UJ
2,4-Dinitrotoluene	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
2,6-Dinitrotoluene	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
2-Chloronaphthalene	mg/kg	NC	NC	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
2-Chlorophenol	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
2-Methylnaphthalene	mg/kg	NC	NC	0.12 J	0.17 J	0.08 U	0.061 J	0.081 U	0.075 U	0.045 J
2-Methylphenol	mg/kg	100	1000	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
2-Nitroaniline	mg/kg	NC	NC	4.1 U	4.4 U	2 U	2.1 U	2 U	1.9 U	1.9 U
2-Nitrophenol	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
3,3'-Dichlorobenzidine	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
3-Nitroaniline	mg/kg	NC	NC	4.1 U	4.4 U	2 U	2.1 U	2 U	1.9 U	1.9 U
4,6-Dinitro-2-methylphenol	mg/kg	NC	NC	3.9 U	4.2 U	1.9 U	1.9 U	1.9 U	1.7 U	1.7 U
4-Bromophenyl phenyl ether	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
4-Chloro-3-methylphenol	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
4-Chloroaniline	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
4-Chlorophenyl phenyl ether	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
4-Methylphenol	mg/kg	34	1000	0.06 J	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
4-Nitroaniline	mg/kg	NC	NC	4.1 U	4.4 U	2 U	2.1 U	2 U	1.9 U	1.9 U
4-Nitrophenol	mg/kg	NC	NC	4.1 U	4.4 U	2 U	2.1 U	2 U	1.9 U	1.9 U
Acenaphthene	mg/kg	100	1000	0.25	0.47	0.08 U	0.084	0.081 U	0.041 J	0.096
Acenaphthylene	mg/kg	100	1000	0.062 J	0.12 J	0.08 U	0.065 J	0.081 U	0.075 U	0.074 U
Acetophenone	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Anthracene	mg/kg	100	1000	0.53	1.2	0.08 U	0.23	0.081 U	0.089	0.22
Atrazine	mg/kg	NC	NC	0.82 UJ	0.88 UJ	0.39 UJ	0.41 UJ	0.4 UJ	0.37 UJ	0.37 UJ
Benzaldehyde	mg/kg	NC	NC	0.82 UJ	0.88 UJ	0.39 UJ	0.41 UJ	0.4 UJ	0.37 UJ	0.37 UJ
Benzo(a)anthracene	mg/kg	1	11	1.5	3	0.08 U	0.66	0.081 U	0.2	0.37
Benzo(a)pyrene	mg/kg	1	1.1	1.4	2.7	0.08 U	0.66	0.081 U	0.15	0.28
Benzo(b)fluoranthene	mg/kg	1	11	1.6	3.3	0.08 U	0.81	0.081 U	0.2	0.48
Benzo(g,h,i)perylene	mg/kg	100	1000	1	2	0.08 U	0.52	0.081 U	0.095	0.15
Benzo(k)fluoranthene	mg/kg	1	110	0.73	1.3	0.08 U	0.28	0.081 U	0.085	0.074 U
Biphenyl (1,1-Biphenyl)	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
bis(2-Chloroethoxy)methane	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
bis(2-Chloroethyl)ether	mg/kg	NC	NC	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
bis(2-Ethylhexyl)phthalate	mg/kg	NC	NC	0.26 J	0.88 U	0.081 J	0.41 U	0.1 J	0.098 J	0.37 U
Butyl benzylphthalate	mg/kg	NC	NC	0.82 U	0.12 J	0.39 U	0.036 J	0.4 U	0.37 U	0.37 U
Caprolactam	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Carbazole	mg/kg	NC	NC	0.23	0.67	0.08 U	0.088	0.081 U	0.044 J	0.12
Chrysene	mg/kg	1	110	1.4	2.7	0.08 U	0.65	0.081 U	0.19	0.33
Dibenz(a,h)anthracene	mg/kg	0.33	1.1	0.23	0.46	0.08 U	0.12	0.081 U	0.075 U	0.074 U
Dibenzofuran	mg/kg	14	1000	0.23 J	0.36 J	0.39 U	0.072 J	0.4 U	0.04 J	0.1 J
Diethyl phthalate	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Dimethyl phthalate	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Di-n-butylphthalate	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Di-n-octyl phthalate	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Fluoranthene	mg/kg	100	1000	2.7	6.2	0.08 U	1.2	0.081 U	0.44	0.96

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

Location ID:	SB-2-07	SB-2-07	SB-3-07	SB-4-07	SB-5-07	SB-6-07	SB-6-07
Sample Name:	SO-37191-072707-RN-SB-2	SO-37191-072707-RN-SB-20	SO-37191-072707-RN-SB-3	SO-37191-072707-RN-SB-4	SO-37191-072507-RN-SB-05	SO-37191-073007-CB-SB6	SO-37191-073007-CB-SB19
Sample Date:	7/27/2007	7/27/2007	7/27/2007	7/27/2007	7/25/2007	7/30/2007	7/30/2007
Depth:	6.5-8 ft BGS	6.5-8 ft BGS	10-13 ft BGS	2-4 ft BGS	4-8 ft BGS	6-10.4 ft BGS	6-10.4 ft BGS
On/Off - Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site	On-Site
		Duplicate				Duplicate	

6 NYCRR Part 375-6.8(b):  
Restricted Use  
Soil Cleanup Objectives  
Protection of Public Health<sup>2</sup>

Parameters	Units <sup>1</sup>	Protection of Public Health <sup>2</sup>								
		Residential	Industrial							
Fluorene	mg/kg	100	1000	0.24	0.53	0.08 U	0.1	0.081 U	0.053 J	0.12
Hexachlorobenzene	mg/kg	0.33	12	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
Hexachlorobutadiene	mg/kg	NC	NC	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
Hexachlorocyclopentadiene	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Hexachloroethane	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	11	0.94	1.8	0.08 U	0.45	0.081 U	0.079	0.12
Isophorone	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Naphthalene	mg/kg	100	1000	0.16 J	0.29	0.08 U	0.086	0.081 U	0.037 J	0.11
Nitrobenzene	mg/kg	NC	NC	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
N-Nitrosodi-n-propylamine	mg/kg	NC	NC	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
N-Nitrosodiphenylamine	mg/kg	NC	NC	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Pentachlorophenol	mg/kg	2.4	55	0.82 U	0.88 U	0.39 U	0.41 U	0.4 U	0.37 U	0.37 U
Phenanthrene	mg/kg	100	1000	2.1	5	0.08 U	0.79	0.081 U	0.44	0.97
Phenol	mg/kg	100	1000	0.17 U	0.18 U	0.08 U	0.083 U	0.081 U	0.075 U	0.074 U
Pyrene	mg/kg	100	1000	2.9	5.4	0.08 U	1.1	0.081 U	0.4	0.78

## Notes:

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

Location ID:	SB-7-07	SB-8-07	SB-9-07
Sample Name:	SO-37191-072507-RN-SB-7	SO-37191-072507-RN-SB-8	SO-37191-072507-RN-SB-9
Sample Date:	7/25/2007	7/25/2007	7/25/2007
Depth:	3-6 ft BGS	3.5-8 ft BGS	3-6 ft BGS
On/Off - Site	On-Site	On-Site	On-Site

6 NYCRR Part 375-6.8(b):  
Restricted Use  
Soil Cleanup Objectives

Parameters	Units <sup>1</sup>	Protection of Public Health <sup>2</sup>				
		Residential	Industrial			
<b>Semivolatile Organic Compounds</b>						
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NC	NC	0.21 U	0.082 U	0.082 U
2,4,5-Trichlorophenol	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
2,4,6-Trichlorophenol	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
2,4-Dichlorophenol	mg/kg	NC	NC	0.21 U	0.082 U	0.082 U
2,4-Dimethylphenol	mg/kg	NC	NC	0.1 J	0.41 U	0.4 U
2,4-Dinitrophenol	mg/kg	NC	NC	5.3 UJ	2.1 UJ	2 UJ
2,4-Dinitrotoluene	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
2,6-Dinitrotoluene	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
2-Chloronaphthalene	mg/kg	NC	NC	0.21 U	0.082 U	0.082 U
2-Chlorophenol	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
2-Methylnaphthalene	mg/kg	NC	NC	0.9	0.074 J	0.082 U
2-Methylphenol	mg/kg	100	1000	1.1 U	0.41 U	0.4 U
2-Nitroaniline	mg/kg	NC	NC	5.3 U	2.1 U	2 U
2-Nitrophenol	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
3,3'-Dichlorobenzidine	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
3-Nitroaniline	mg/kg	NC	NC	5.3 U	2.1 U	2 U
4,6-Dinitro-2-methylphenol	mg/kg	NC	NC	5 U	1.9 U	1.9 U
4-Bromophenyl phenyl ether	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
4-Chloro-3-methylphenol	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
4-Chloroaniline	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
4-Chlorophenyl phenyl ether	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
4-Methylphenol	mg/kg	34	1000	0.19 J	0.41 U	0.4 U
4-Nitroaniline	mg/kg	NC	NC	5.3 U	2.1 U	2 U
4-Nitrophenol	mg/kg	NC	NC	5.3 U	2.1 U	2 U
Acenaphthene	mg/kg	100	1000	0.69	0.032 J	0.082 U
Acenaphthylene	mg/kg	100	1000	4.5	0.029 J	0.082 U
Acetophenone	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Anthracene	mg/kg	100	1000	6	0.29	0.082 U
Atrazine	mg/kg	NC	NC	1.1 UJ	0.41 UJ	0.4 UJ
Benzaldehyde	mg/kg	NC	NC	1.1 UJ	0.41 UJ	0.4 UJ
Benzo(a)anthracene	mg/kg	1	11	15	0.82	0.04 J
Benzo(a)pyrene	mg/kg	1	1.1	14	0.69	0.053 J
Benzo(b)fluoranthene	mg/kg	1	11	17	0.91	0.071 J
Benzo(g,h,i)perylene	mg/kg	100	1000	9.2	0.56	0.059 J
Benzo(k)fluoranthene	mg/kg	1	110	4.5	0.31	0.024 J
Biphenyl (1,1-Biphenyl)	mg/kg	NC	NC	0.22 J	0.41 U	0.4 U
bis(2-Chloroethoxy)methane	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
bis(2-Chloroethyl)ether	mg/kg	NC	NC	0.21 U	0.082 U	0.082 U
bis(2-Ethylhexyl)phthalate	mg/kg	NC	NC	1.1 U	0.41 U	0.082 J
Butyl benzylphthalate	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Caprolactam	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Carbazole	mg/kg	NC	NC	1.1	0.087	0.082 U
Chrysene	mg/kg	1	110	13	0.79	0.045 J
Dibenz(a,h)anthracene	mg/kg	0.33	1.1	2.4	0.14	0.082 U
Dibenzofuran	mg/kg	14	1000	1.6	0.043 J	0.4 U
Diethyl phthalate	mg/kg	NC	NC	0.29 J	0.41 U	0.4 U
Dimethyl phthalate	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Di-n-butylphthalate	mg/kg	NC	NC	0.2 J	1	0.4 U
Di-n-octyl phthalate	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Fluoranthene	mg/kg	100	1000	30	1.4	0.054 J

TABLE 6.5

SVOC ANALYTICAL RESULTS SUMMARY- SUBSURFACE  
SOIL  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

<b>Location ID:</b>	SB-7-07	SB-8-07	SB-9-07
<b>Sample Name:</b>	SO-37191-072507-RN-SB-7	SO-37191-072507-RN-SB-8	SO-37191-072507-RN-SB-9
<b>Sample Date:</b>	7/25/2007	7/25/2007	7/25/2007
<b>Depth:</b>	3-6 ft BGS	3.5-8 ft BGS	3-6 ft BGS
<b>On/Off - Site</b>	On-Site	On-Site	On-Site

6 NYCRR Part 375-6.8(b):  
Restricted Use  
Soil Cleanup Objectives  
Protection of Public Health<sup>2</sup>

Parameters	Units <sup>1</sup>	Protection of Public Health <sup>2</sup>				
		Residential	Industrial			
Fluorene	mg/kg	100	1000	2.5	0.06 J	0.082 U
Hexachlorobenzene	mg/kg	0.33	12	0.21 U	0.082 U	0.082 U
Hexachlorobutadiene	mg/kg	NC	NC	0.21 U	0.082 U	0.082 U
Hexachlorocyclopentadiene	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Hexachloroethane	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Indeno(1,2,3-cd)pyrene	mg/kg	0.5	11	8.5	0.48	0.049 J
Isophorone	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Naphthalene	mg/kg	100	1000	1.4	0.05 J	0.082 U
Nitrobenzene	mg/kg	NC	NC	0.21 U	0.082 U	0.082 U
N-Nitrosodi-n-propylamine	mg/kg	NC	NC	0.21 U	0.082 U	0.082 U
N-Nitrosodiphenylamine	mg/kg	NC	NC	1.1 U	0.41 U	0.4 U
Pentachlorophenol	mg/kg	2.4	55	1.1 U	0.41 U	0.4 U
Phenanthrene	mg/kg	100	1000	20	0.93	0.032 J
Phenol	mg/kg	100	1000	0.21 U	0.082 U	0.082 U
Pyrene	mg/kg	100	1000	26	1.2	0.054 J

**Notes:**

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

<sup>2</sup> - Sample results from locations identified as on-Site are compared to the Restricted Use - Industrial SCO. Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.6

**HERBICIDE, PCB, AND PESTICIDE ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
BCP REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID: Sample Name: Sample Date:	MW-4 WG-37191-082107-RN-001 8/21/2007		MW-4 WG-37191-082107-RN-002 8/21/2007 Duplicate		MW-4 WG-37191-052808-003 5/28/2008		MW-4 WG-37191-052808-004 5/28/2008 Duplicate		MW-9 WG-37191-082107-RN-007 8/21/2007		MW-9 WG-37191-052808-001 5/28/2008	
	New York State Water Quality											
	Units	Standards	Guidance Values									
<b>Herbicides</b>												
2,4,5-T	ug/L	35	NC	0.95 U	1.1 U	0.95 U	0.95 U	0.96 U	0.94 U			
2,4,5-TP (Silvex)	ug/L	0.26	NC	0.95 U	1.1 U	0.95 U	0.95 U	0.96 U	0.94 U			
2,4-DB	ug/L	NC	NC	3.8 U	4.4 U	3.8 U	3.8 U	3.8 U	3.8 U			
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/L	50	NC	3.8 U	4.4 U	3.8 U	3.8 U	3.8 U	3.8 U			
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	ug/L	0.44	NC	380 U	440 U	380 UJ	380 UJ	380 U	380 UJ			
Dalapon	ug/L	50	NC	4.8 U	5.6 U	4.8 U	4.8 U	4.8 U	4.7 U			
Dicamba	ug/L	0.44	NC	1.9 U	2.2 U	1.9 U	1.9 U	1.9 U	1.9 U			
Dichlorprop	ug/L	NC	NC	3.8 U	4.4 U	3.8 U	3.8 U	3.8 U	3.8 U			
Dinoseb	ug/L	1	NC	0.86 U	1.0 U	0.86 U	0.86 U	0.86 U	0.85 U			
Mecoprop (MCPP)	ug/L	NC	NC	380 U	440 U	380 UJ	380 UJ	380 U	380 UJ			
<b>PCBs</b>												
Aroclor-1016 (PCB-1016)	ug/L	0.09 <sup>1</sup>	NC	0.41 U	0.41 U	0.38 U	0.38 U	0.41 U	0.38 U			
Aroclor-1221 (PCB-1221)	ug/L	0.09 <sup>1</sup>	NC	0.41 U	0.41 U	0.38 U	0.38 U	0.41 U	0.38 U			
Aroclor-1232 (PCB-1232)	ug/L	0.09 <sup>1</sup>	NC	0.41 U	0.41 U	0.38 U	0.38 U	0.41 U	0.38 U			
Aroclor-1242 (PCB-1242)	ug/L	0.09 <sup>1</sup>	NC	0.41 U	0.41 U	0.38 U	0.38 U	0.41 U	0.38 U			
Aroclor-1248 (PCB-1248)	ug/L	0.09 <sup>1</sup>	NC	0.41 U	0.41 U	0.38 U	0.38 U	0.41 U	0.38 U			
Aroclor-1254 (PCB-1254)	ug/L	0.09 <sup>1</sup>	NC	0.41 U	0.41 U	0.38 U	0.38 U	0.41 U	0.38 U			
Aroclor-1260 (PCB-1260)	ug/L	0.09 <sup>1</sup>	NC	0.41 U	0.41 U	0.38 U	0.38 U	0.41 U	0.38 U			
<b>Pesticides</b>												
4,4'-DDD	ug/L	0.3	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
4,4'-DDE	ug/L	0.2	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
4,4'-DDT	ug/L	0.2	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
Aldrin	ug/L	NC	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
alpha-BHC	ug/L	0.01	NC	0.021 J	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
alpha-Chlordane	ug/L	NC	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
beta-BHC	ug/L	0.04	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
delta-BHC	ug/L	0.04	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.081 U	0.047 U			
Dieldrin	ug/L	0.004	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
Endosulfan I	ug/L	NC	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
Endosulfan II	ug/L	NC	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
Endosulfan sulfate	ug/L	NC	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.048 U	0.024 J			
Endrin	ug/L	NC	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.011 J	0.047 U			
Endrin aldehyde	ug/L	5	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
Endrin ketone	ug/L	5	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
gamma-BHC (Lindane)	ug/L	0.05	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
gamma-Chlordane	ug/L	NC	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
Heptachlor	ug/L	0.04	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
Heptachlor epoxide	ug/L	0.03	NC	0.051 U	0.051 U	0.047 U	0.048 U	0.051 U	0.047 U			
Methoxychlor	ug/L	35	NC	0.10 U	0.10 U	0.094 U	0.095 U	0.10 U	0.094 U			
Toxaphene	ug/L	0.06	NC	2.0 U	2.0 U	1.9 U	1.9 U	2.0 U	1.9 U			

<sup>1</sup> - The standard applies to the sum of the substances

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.



TABLE 6.7

**METALS ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:				MW-4	MW-4	MW-4	MW-4	MW-5	MW-5	MW-6	MW-8	
Sample Name:				WG-37191-082107-RN-001	WG-37191-082107-RN-002	WG-37191-052808-003	WG-37191-052808-004	WG-37191-082107-RN-003	WG-37191-052808-008	WG-37191-052808-002	WG-37191-082107-RN-006	
Sample Date:				8/21/2007	8/21/2007 Duplicate	5/28/2008	5/28/2008 Duplicate	8/21/2007	5/28/2008	5/28/2008	8/21/2007	
	New York State Water Quality											
	Units	Standards	Guidance Values									
<i>Metals</i>												
Aluminum	ug/L	NC	NC	5110 J	4190 J	116 J	102 J	--	--	--	--	
Antimony	ug/L	3	NC	3.9 J	5.0 J	10.0 U	10.0 U	--	--	--	--	
Arsenic	ug/L	25	NC	4.7 J	4.1 J	10.0 U	10.0 U	--	--	--	--	
Barium	ug/L	1000	NC	110 J	86.6 J	39.5 J	38.2 J	--	--	--	--	
Beryllium	ug/L	NC	3	4.0 U	4.0 U	4.0 U	4.0 U	--	--	--	--	
Cadmium	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--	
Calcium	ug/L	NC	NC	172000	165000	136000	140000	--	--	--	--	
Chromium	ug/L	50	NC	13.6	10.2	5.0 U	5.0 U	--	--	--	--	
Cobalt	ug/L	NC	NC	4.4 J	3.3 J	1.1 J	0.93 J	--	--	--	--	
Copper	ug/L	200	NC	13.8 J	10.2 J	25.0 U	25.0 U	--	--	--	--	
Iron	ug/L	300	NC	6350	4850	653 J	504 J	--	--	--	--	
Lead	ug/L	25	NC	56.8 J	30.0 J	2.7 J	2.8 J	13.8	3.2	3.0 U	33.6	
Magnesium	ug/L	NC	35000	46300	44000	37400	38100	--	--	--	--	
Manganese	ug/L	300	NC	915	860	858	864	--	--	--	--	
Mercury	ug/L	0.7	NC	0.097 J	0.20 U	0.20 U	0.20 U	--	--	--	--	
Nickel	ug/L	100	NC	10.7 J	8.1 J	2.2 J	2.0 J	--	--	--	--	
Potassium	ug/L	NC	NC	2470 J	2260 J	675 J	711 J	--	--	--	--	
Selenium	ug/L	10	NC	2.6 J	5.0 U	5.0 U	5.0 U	--	--	--	--	
Silver	ug/L	50	NC	2.1 J	1.2 J	5.0 U	5.0 U	--	--	--	--	
Sodium	ug/L	20000	NC	168000	173000	133000	145000	--	--	--	--	
Thallium	ug/L	NC	0.5	3.2 J	5.0 J	10.0 U	10.0 U	--	--	--	--	
Vanadium	ug/L	NC	NC	18.8 J	21.6 J	1.3 J	50.0 U	--	--	--	--	
Zinc	ug/L	NC	2000	67.4	40.9 U	20.0 U	20.0 U	--	--	--	--	
<i>Metals (Dissolved)</i>												
Aluminum (Dissolved)	ug/L	NC	NC	200 U	200 U	200 U	200 U	--	--	--	--	
Antimony (Dissolved)	ug/L	3	NC	10.0 U	10.0 U	10.0 U	10.0 U	--	--	--	--	
Arsenic (Dissolved)	ug/L	25	NC	10.0 U	10.0 U	10.0 U	10.0 U	--	--	--	--	
Barium (Dissolved)	ug/L	1000	NC	40.4 J	43.1 J	34.5 J	33.4 J	--	--	--	--	
Beryllium (Dissolved)	ug/L	NC	3	4.0 U	4.0 U	4.0 U	4.0 U	--	--	--	--	
Cadmium (Dissolved)	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--	
Calcium (Dissolved)	ug/L	NC	NC	135000	144000	134000	133000	--	--	--	--	
Chromium Total (Dissolved)	ug/L	50	NC	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--	
Cobalt (Dissolved)	ug/L	NC	NC	50.0 U	50.0 U	1.2 J	0.87 J	--	--	--	--	
Copper (Dissolved)	ug/L	200	NC	25.0 U	25.0 U	25.0 U	25.0 U	--	--	--	--	
Iron (Dissolved)	ug/L	300	NC	100 U	100 U	218	207	--	--	--	--	
Lead (Dissolved)	ug/L	25	NC	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	
Magnesium (Dissolved)	ug/L	NC	35000	36000	38300	36700	36600	--	--	--	--	
Manganese (Dissolved)	ug/L	300	NC	714	761	799	786	--	--	--	--	
Mercury (Dissolved)	ug/L	0.7	NC	0.062 J	0.20 U	0.20 U	0.20 U	--	--	--	--	
Nickel (Dissolved)	ug/L	100	NC	1.4 J	1.2 J	2.1 J	1.9 J	--	--	--	--	
Potassium (Dissolved)	ug/L	NC	NC	1290 J	1390 J	689 J	687 J	--	--	--	--	
Selenium (Dissolved)	ug/L	10	NC	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--	
Silver (Dissolved)	ug/L	50	NC	5.0 U	5.0 U	5.0 U	5.0 U	--	--	--	--	
Sodium (Dissolved)	ug/L	20000	NC	193000	192000	138000	144000	--	--	--	--	
Thallium (Dissolved)	ug/L	NC	0.5	10.0 U	10.0 U	10.0 U	10.0 U	--	--	--	--	
Vanadium (Dissolved)	ug/L	NC	NC	11.8 J	10.7 J	1.6 J	2.2 J	--	--	--	--	
Zinc (Dissolved)	ug/L	NC	2000	20.0 U	20.0 U	20.0 U	20.0 U	--	--	--	--	
<i>Wet Chemistry</i>												
Cyanide (total)	ug/L	200	NC	10.0 U	6.4 J	3.4 J	2.9 J	--	--	--	--	

## Notes:

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.7

**METALS ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	MW-8	MW-9	MW-9	MW-10	MW-11	MW-12	MW-12	MW-12
Sample Name:	WG-37191-052808-005	WG-37191-082107-RN-007	WG-37191-052808-001	WG-37191-091908-002	WG-37191-091908-001	WG-37191-082107-RN-004	WG-37191-082107-RN-005	WG-37191-052808-006
Sample Date:	5/28/2008	8/21/2007	5/28/2008	9/19/2008	9/19/2008	8/21/2007	8/21/2007 <i>Duplicate</i>	5/28/2008
<i>New York State Water Quality</i>								
	Units	Standards	Guidance Values					
<b>Metals</b>								
Aluminum	ug/L	NC	NC	--	8250 J	200 U	--	--
Antimony	ug/L	3	NC	--	<b>7.5 J</b>	10.0 U	--	--
Arsenic	ug/L	25	NC	--	9.4 J	10.0 U	--	--
Barium	ug/L	1000	NC	--	90.2 J	29.1 J	--	--
Beryllium	ug/L	NC	3	--	4.0 U	4.0 U	--	--
Cadmium	ug/L	5	NC	--	5.0 U	5.0 U	--	--
Calcium	ug/L	NC	NC	--	301000	217000	--	--
Chromium	ug/L	50	NC	--	14.5	5.0 U	--	--
Cobalt	ug/L	NC	NC	--	6.5 J	3.4 J	--	--
Copper	ug/L	200	NC	--	24.6 J	25.0 U	--	--
Iron	ug/L	300	NC	--	<b>14300</b>	<b>1620 J</b>	--	--
Lead	ug/L	25	NC	3.0 U	<b>28.7</b>	3.0 U	3.0 U	3.0 U
Magnesium	ug/L	NC	35000	--	<b>58500</b>	<b>36400</b>	--	--
Manganese	ug/L	300	NC	--	<b>472</b>	<b>317</b>	--	--
Mercury	ug/L	0.7	NC	--	0.088 J	0.20 U	--	--
Nickel	ug/L	100	NC	--	18.5 J	5.4 J	--	--
Potassium	ug/L	NC	NC	--	10600	7090	--	--
Selenium	ug/L	10	NC	--	5.0 U	5.0 U	--	--
Silver	ug/L	50	NC	--	1.3 J	5.0 U	--	--
Sodium	ug/L	20000	NC	--	<b>44700</b>	<b>32700</b>	--	--
Thallium	ug/L	NC	0.5	--	10.0 U	<b>3.7 J</b>	--	--
Vanadium	ug/L	NC	NC	--	17.9 J	1.1 J	--	--
Zinc	ug/L	NC	2000	--	93.3	20.0 U	--	--
<b>Metals (Dissolved)</b>								
Aluminum (Dissolved)	ug/L	NC	NC	--	200 U	200 U	--	--
Antimony (Dissolved)	ug/L	3	NC	--	<b>3.3 J</b>	10.0 U	--	--
Arsenic (Dissolved)	ug/L	25	NC	--	10.0 U	10.0 U	--	--
Barium (Dissolved)	ug/L	1000	NC	--	35.8 J	28.3 J	--	--
Beryllium (Dissolved)	ug/L	NC	3	--	4.0 U	4.0 U	--	--
Cadmium (Dissolved)	ug/L	5	NC	--	5.0 U	5.0 U	--	--
Calcium (Dissolved)	ug/L	NC	NC	--	249000	224000	--	--
Chromium Total (Dissolved)	ug/L	50	NC	--	5.0 U	5.0 U	--	--
Cobalt (Dissolved)	ug/L	NC	NC	--	50.0 U	3.2 J	--	--
Copper (Dissolved)	ug/L	200	NC	--	25.0 U	25.0 U	--	--
Iron (Dissolved)	ug/L	300	NC	--	100 U	<b>620</b>	--	--
Lead (Dissolved)	ug/L	25	NC	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium (Dissolved)	ug/L	NC	35000	--	<b>44700</b>	<b>38000</b>	--	--
Manganese (Dissolved)	ug/L	300	NC	--	221	296	--	--
Mercury (Dissolved)	ug/L	0.7	NC	--	0.067 J	0.20 U	--	--
Nickel (Dissolved)	ug/L	100	NC	--	4.5 J	5.6 J	--	--
Potassium (Dissolved)	ug/L	NC	NC	--	7610	7150	--	--
Selenium (Dissolved)	ug/L	10	NC	--	5.0 U	5.0 U	--	--
Silver (Dissolved)	ug/L	50	NC	--	5.0 U	5.0 U	--	--
Sodium (Dissolved)	ug/L	20000	NC	--	<b>43200</b>	<b>34300</b>	--	--
Thallium (Dissolved)	ug/L	NC	0.5	--	10.0 U	10.0 U	--	--
Vanadium (Dissolved)	ug/L	NC	NC	--	1.3 J	2.6 J	--	--
Zinc (Dissolved)	ug/L	NC	2000	--	20.0 U	20.0 U	--	--
<b>Wet Chemistry</b>								
Cyanide (total)	ug/L	200	NC	--	2.4 J	2.6 J	--	--

## Notes:

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.7

**METALS ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	MW-12	MW-17			
Sample Name:	WG-37191-052808-007	WG-37191-052808-009			
Sample Date:	5/28/2008	5/28/2008			
	<i>Duplicate</i>				
	<i>New York State Water Quality</i>				
	<i>Units</i>	<i>Standards</i>	<i>Guidance Values</i>		
<i>Metals</i>					
Aluminum	ug/L	NC	NC	--	--
Antimony	ug/L	3	NC	--	--
Arsenic	ug/L	25	NC	--	--
Barium	ug/L	1000	NC	--	--
Beryllium	ug/L	NC	3	--	--
Cadmium	ug/L	5	NC	--	--
Calcium	ug/L	NC	NC	--	--
Chromium	ug/L	50	NC	--	--
Cobalt	ug/L	NC	NC	--	--
Copper	ug/L	200	NC	--	--
Iron	ug/L	300	NC	--	--
Lead	ug/L	25	NC	3.0 U	3.0 U
Magnesium	ug/L	NC	35000	--	--
Manganese	ug/L	300	NC	--	--
Mercury	ug/L	0.7	NC	--	--
Nickel	ug/L	100	NC	--	--
Potassium	ug/L	NC	NC	--	--
Selenium	ug/L	10	NC	--	--
Silver	ug/L	50	NC	--	--
Sodium	ug/L	20000	NC	--	--
Thallium	ug/L	NC	0.5	--	--
Vanadium	ug/L	NC	NC	--	--
Zinc	ug/L	NC	2000	--	--
<i>Metals (Dissolved)</i>					
Aluminum (Dissolved)	ug/L	NC	NC	--	--
Antimony (Dissolved)	ug/L	3	NC	--	--
Arsenic (Dissolved)	ug/L	25	NC	--	--
Barium (Dissolved)	ug/L	1000	NC	--	--
Beryllium (Dissolved)	ug/L	NC	3	--	--
Cadmium (Dissolved)	ug/L	5	NC	--	--
Calcium (Dissolved)	ug/L	NC	NC	--	--
Chromium Total (Dissolved)	ug/L	50	NC	--	--
Cobalt (Dissolved)	ug/L	NC	NC	--	--
Copper (Dissolved)	ug/L	200	NC	--	--
Iron (Dissolved)	ug/L	300	NC	--	--
Lead (Dissolved)	ug/L	25	NC	3.0 U	3.0 U
Magnesium (Dissolved)	ug/L	NC	35000	--	--
Manganese (Dissolved)	ug/L	300	NC	--	--
Mercury (Dissolved)	ug/L	0.7	NC	--	--
Nickel (Dissolved)	ug/L	100	NC	--	--
Potassium (Dissolved)	ug/L	NC	NC	--	--
Selenium (Dissolved)	ug/L	10	NC	--	--
Silver (Dissolved)	ug/L	50	NC	--	--
Sodium (Dissolved)	ug/L	20000	NC	--	--
Thallium (Dissolved)	ug/L	NC	0.5	--	--
Vanadium (Dissolved)	ug/L	NC	NC	--	--
Zinc (Dissolved)	ug/L	NC	2000	--	--
<i>Wet Chemistry</i>					
Cyanide (total)	ug/L	200	NC	--	--

## Notes:

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

Location ID:	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
Sample Name:	WG-37191-082107-RN-001	WG-37191-082107-RN-002	WG-37191-052808-003	WG-37191-052808-004	GW-37191-011309-JJW-002	WG-37191-072209-037
Sample Date:	8/21/2007	8/21/2007	5/28/2008	5/28/2008	1/13/2009	7/22/2009
	New York State Water Quality					
	Units	Standards	Guidance Values			
<i>Volatile Organic Compounds</i>						
1,1,1-Trichloroethane	ug/L	5	NC	150 U	100 U	71 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	150 U	100 U	71 U
1,1,2-Trichloroethane	ug/L	1	NC	150 U	100 U	71 U
1,1-Dichloroethane	ug/L	5	NC	150 U	100 U	71 U
1,1-Dichloroethene	ug/L	5	NC	150 U	100 U	71 U
1,2,4-Trichlorobenzene	ug/L	5	NC	150 U	100 U	71 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	150 U	100 U	71 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	150 U	100 U	71 U
1,2-Dichlorobenzene	ug/L	3	NC	150 U	100 U	71 U
1,2-Dichloroethane	ug/L	0.6	NC	150 U	100 U	71 U
1,2-Dichloropropane	ug/L	1	NC	150 U	100 U	71 U
1,3-Dichlorobenzene	ug/L	3	NC	150 U	100 U	71 U
1,4-Dichlorobenzene	ug/L	3	NC	150 U	100 U	71 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	150 U	100 U	71 U
2-Hexanone	ug/L	NC	50	150 U	100 U	71 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	150 U	100 U	71 U
Acetone	ug/L	NC	50	600 UJ	400 U	290 U
Benzene	ug/L	1	NC	150 U	100 U	71 U
Bromodichloromethane	ug/L	NC	50	150 U	100 U	71 U
Bromoform	ug/L	NC	50	150 U	100 U	71 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	150 U	100 U	71 U
Carbon disulfide	ug/L	60	60	150 U	100 U	71 U
Carbon tetrachloride	ug/L	5	NC	150 U	100 U	71 U
Chlorobenzene	ug/L	5	NC	150 U	100 U	71 U
Chloroethane	ug/L	5	NC	150 U	100 UJ	71 U
Chloroform (Trichloromethane)	ug/L	7	NC	150 U	100 U	71 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	150 U	100 U	71 U
cis-1,2-Dichloroethene	ug/L	5	NC	<b>2200 J</b>	<b>1100 J</b>	<b>1200</b>
cis-1,3-Dichloropropene	ug/L	NC	NC	150 U	100 U	71 U
Cyclohexane	ug/L	NC	NC	150 U	100 U	71 U
Dibromochloromethane	ug/L	NC	50	150 U	100 U	71 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	150 UJ	100 U	71 U
Ethylbenzene	ug/L	5	NC	150 U	100 U	71 U
Isopropylbenzene	ug/L	5	NC	150 U	100 U	71 U
Methyl acetate	ug/L	NC	NC	150 U	100 U	71 U
Methyl cyclohexane	ug/L	NC	NC	150 U	100 U	71 U
Methyl Tert Butyl Ether	ug/L	NC	10	150 U	100 U	71 U
Methylene chloride	ug/L	5	NC	150 U	100 U	71 U
Styrene	ug/L	5	NC	150 U	100 U	71 U
Tetrachloroethene	ug/L	5	NC	150 U	100 U	71 U
Toluene	ug/L	5	NC	150 U	100 U	71 U
trans-1,2-Dichloroethene	ug/L	5	NC	<b>87 J</b>	<b>34 J</b>	<b>27 J</b>
trans-1,3-Dichloropropene	ug/L	NC	NC	150 U	100 U	71 U
Trichloroethene	ug/L	5	NC	<b>2000 J</b>	<b>1000 J</b>	<b>2200</b>
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	150 U	100 U	71 U
Trifluorotrchloroethane (Freon 113)	ug/L	5	NC	150 UJ	100 UJ	71 U
Vinyl chloride	ug/L	2	NC	<b>31 J</b>	100 U	<b>17 J</b>
Xylene (total)	ug/L	NC	NC	450 U	300 U	210 U

TABLE 6.8

**VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

<i>Location ID:</i>	MW-4	MW-4	MW-4	MW-4	MW-4	MW-4
<i>Sample Name:</i>	WG-37191-082107-RN-001	WG-37191-082107-RN-002	WG-37191-052808-003	WG-37191-052808-004	GW-37191-011309-JJW-002	WG-37191-072209-037
<i>Sample Date:</i>	8/21/2007	8/21/2007	5/28/2008	5/28/2008	1/13/2009	7/22/2009
		Duplicate		Duplicate		

	<i>New York State Water Quality</i>									
	<i>Units</i>	<i>Standards</i>	<i>Guidance Values</i>							
<i>Field Parameters</i>										
Conductivity	mS/cm	NC	NC	4.23	--	54.4	--	0.354	1.495	
Dissolved Oxygen	ug/L	NC	NC	--	--	4320	--	810	1450	
Oxidation reduction potential	millivolts	NC	NC	--	--	8	--	--	-64	
Temperature, Field	Deg C	NC	NC	14.8	--	--	--	8	18.35	
Turbidity	NTU	5	NC	736	--	218	--	14.7	20.9	
pH	pH units	6.5-8.5	NC	7.07	--	6.48	--	6.9	6.87	

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.  
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.  
considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.8

**VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	MW-5	MW-5	MW-5	MW-5	MW-6	MW-6			
Sample Name:	WG-37191-082107-RN-003	WG-37191-052808-008	GW-37191-012009-JJW-011	WG-37191-072209-040	WG-37191-052808-002	GW-37191-012009-JJW-009			
Sample Date:	8/21/2007	5/28/2008	1/20/2009	7/22/2009	5/28/2008	1/20/2009			
<i>New York State Water Quality</i>									
<i>Volatile Organic Compounds</i>	<i>Units</i>	<i>Standards</i>	<i>Guidance Values</i>						
1,1,1-Trichloroethane	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,1,2-Trichloroethane	ug/L	1	NC	9800 J	12000 U	25000 U	20000 U	59 U	50 U
1,1-Dichloroethane	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,1-Dichloroethene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,2,4-Trichlorobenzene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	15 J	50 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,2-Dichlorobenzene	ug/L	3	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,2-Dichloroethane	ug/L	0.6	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,2-Dichloropropane	ug/L	1	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,3-Dichlorobenzene	ug/L	3	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
1,4-Dichlorobenzene	ug/L	3	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	12000 U	12000 U	25000 U	20000 U	59 U	50 UJ
2-Hexanone	ug/L	NC	50	12000 U	12000 U	25000 U	20000 U	59 U	50 UJ
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 UJ
Acetone	ug/L	NC	50	50000 U	50000 U	100000 U	80000 U	240 U	200 U
Benzene	ug/L	1	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Bromodichloromethane	ug/L	NC	50	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Bromoform	ug/L	NC	50	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	12000 U	12000 U	25000 UJ	20000 U	59 U	50 UJ
Carbon disulfide	ug/L	60	60	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Carbon tetrachloride	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Chlorobenzene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Chloroethane	ug/L	5	NC	12000 UJ	12000 U	25000 UJ	20000 U	59 U	50 UJ
Chloroform (Trichloromethane)	ug/L	7	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
cis-1,2-Dichloroethene	ug/L	5	NC	240000	150000	320000	310000	1600	1300
cis-1,3-Dichloropropene	ug/L	NC	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Cyclohexane	ug/L	NC	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Dibromochloromethane	ug/L	NC	50	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Ethylbenzene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Isopropylbenzene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Methyl acetate	ug/L	NC	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Methyl cyclohexane	ug/L	NC	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Methyl Tert Butyl Ether	ug/L	NC	10	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Methylene chloride	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Styrene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Tetrachloroethene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	13 J	50 U
Toluene	ug/L	5	NC	12000 U	12000 U	25000 U	96000	59 U	50 U
trans-1,2-Dichloroethene	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	11 J	8.3 J
trans-1,3-Dichloropropene	ug/L	NC	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Trichloroethene	ug/L	5	NC	550000	310000	560000	410000	630	450 J
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	12000 UJ	12000 U	25000 U	20000 U	59 U	50 U
Trifluorotrchloroethane (Freon 113)	ug/L	5	NC	12000 U	12000 U	25000 U	20000 U	59 U	50 U
Vinyl chloride	ug/L	2	NC	12000 U	12000 U	25000 U	20000 U	24 J	15 J
Xylene (total)	ug/L	NC	NC	38000 U	38000 U	75000 U	17000 J	180 U	150 U

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

<i>Location ID:</i>	MW-5	MW-5	MW-5	MW-5	MW-6	MW-6
<i>Sample Name:</i>	WG-37191-082107-RN-003	WG-37191-052808-008	GW-37191-012009-JJW-011	WG-37191-072209-040	WG-37191-052808-002	GW-37191-012009-JJW-009
<i>Sample Date:</i>	8/21/2007	5/28/2008	1/20/2009	7/22/2009	5/28/2008	1/20/2009

	<i>New York State Water Quality</i>									
	<i>Units</i>	<i>Standards</i>	<i>Guidance Values</i>							
<i>Field Parameters</i>										
Conductivity	mS/cm	NC	NC	2.53	1.7	1.08	1.9	31.2	0.87	
Dissolved Oxygen	ug/L	NC	NC	--	2700	480	560	4500	4000	
Oxidation reduction potential	millivolts	NC	NC	--	195	--	-43	22	--	
Temperature, Field	Deg C	NC	NC	14.7	14	6.3	18.82	--	6	
Turbidity	NTU	5	NC	<b>1000 &gt;</b>	<b>61.3</b>	<b>28</b>	2.83	1.4	<b>23.2</b>	
pH	pH units	6.5-8.5	NC	7.14	6.57	6.7	7.39	<b>6.43</b>	7.06	

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.  
 Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.  
 considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.8

**VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	MW-6	MW-7	MW-7	MW-8	MW-8	MW-8			
Sample Name:	WG-37191-072209-035	GW-37191-012109-IJW-013	WG-37191-072209-030	WG-37191-082107-RN-006	WG-37191-052808-005	WG-37191-030509-001			
Sample Date:	7/22/2009	1/21/2009	7/22/2009	8/21/2007	5/28/2008	3/5/2009			
<i>New York State Water Quality</i>									
<i>Volatile Organic Compounds</i>	<i>Units</i>	<i>Standards</i>	<i>Guidance Values</i>						
1,1,1-Trichloroethane	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	50 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	1	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5	NC	50 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	50 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	3	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	0.6	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	3	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	3	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	50 U	2.8 J	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	ug/L	NC	50	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	ug/L	NC	50	200 U	20 U	20 U	20 UJ	20 U	20 UJ
Benzene	ug/L	1	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	NC	50	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	NC	50	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	ug/L	60	60	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	7	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5	NC	740	5.0 U	5.0 U	1.0 J	5.0 U	5.0 U
cis-1,3-Dichloropropene	ug/L	NC	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	NC	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	NC	50	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-11)	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Ethylbenzene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	NC	NC	50 UJ	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	NC	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl Tert Butyl Ether	ug/L	NC	10	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	NC	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	ug/L	5	NC	290	5.0 U	5.0 U	3.2 J	5.0 U	0.97 J
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	50 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Trifluorotrchloroethane (Freon 113)	ug/L	5	NC	50 U	5.0 U	5.0 U	5.0 UJ	5.0 U	5.0 U
Vinyl chloride	ug/L	2	NC	50 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylene (total)	ug/L	NC	NC	150 U	15 U	15 U	15 U	15 U	15 U



TABLE 6.8

**VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

<i>Location ID:</i>	MW-6	MW-7	MW-7	MW-8	MW-8	MW-8
<i>Sample Name:</i>	WG-37191-072209-035	GW-37191-012109-IJW-013	WG-37191-072209-030	WG-37191-082107-RN-006	WG-37191-052808-005	WG-37191-030509-001
<i>Sample Date:</i>	7/22/2009	1/21/2009	7/22/2009	8/21/2007	5/28/2008	3/5/2009

*New York State Water Quality  
Units Standards Guidance Values*

*Field Parameters*

	Units	Standards	Guidance Values	MW-6	MW-7	MW-7	MW-8	MW-8	MW-8
Conductivity	mS/cm	NC	NC	0.639	1.45	1.369	3.17	0.887	--
Dissolved Oxygen	ug/L	NC	NC	1900	0	510	--	540	--
Oxidation reduction potential	millivolts	NC	NC	-12	--	-22	--	45	--
Temperature, Field	Deg C	NC	NC	16.14	8.5	16.52	173	14	--
Turbidity	NTU	5	NC	2.16	<b>11.1</b>	<b>5.02</b>	<b>1000 &gt;</b>	0	--
pH	pH units	6.5-8.5	NC	6.96	6.66	6.92	7.05	6.96	--

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.

considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

**VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	MW-8	MW-9	MW-9	MW-9	MW-9	MW-10			
Sample Name:	WG-37191-072109-018	WG-37191-082107-RN-007	WG-37191-052808-001	GW-37191-011909-JJW-006	WG-37191-072109-015	WG-37191-091908-002			
Sample Date:	7/21/2009	8/21/2007	5/28/2008	1/19/2009	7/21/2009	9/19/2008			
<i>New York State Water Quality</i>									
<i>Volatile Organic Compounds</i>	<i>Units</i>	<i>Standards</i>	<i>Guidance Values</i>						
1,1,1-Trichloroethane	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	1	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ
1,2-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	0.6	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 UJ	5.0 U
2-Hexanone	ug/L	NC	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	ug/L	NC	50	20 UJ	20 UJ	20 U	20 U	20 UJ	20 U
Benzene	ug/L	1	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	NC	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	NC	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U
Carbon disulfide	ug/L	60	60	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	ug/L	5	NC	5.0 U	5.0 U	5.0 UJ	5.0 UJ	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	7	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.6 J
Dibromochloromethane	ug/L	NC	50	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-11)	ug/L	5	NC	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 UJ
Methyl cyclohexane	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.7 J
Methyl Tert Butyl Ether	ug/L	NC	10	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	NC	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	ug/L	5	NC	1.1 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trifluorotrchloroethane (Freon 113)	ug/L	5	NC	5.0 U	5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2	NC	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylene (total)	ug/L	NC	NC	15 U	15 U	15 U	15 U	15 U	2.5 J

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

Location ID:	MW-8	MW-9	MW-9	MW-9	MW-9	MW-10
Sample Name:	WG-37191-072109-018	WG-37191-082107-RN-007	WG-37191-052808-001	GW-37191-011909-JJW-006	WG-37191-072109-015	WG-37191-091908-002
Sample Date:	7/21/2009	8/21/2007	5/28/2008	1/19/2009	7/21/2009	9/19/2008

	New York State Water Quality									
	Units	Standards	Guidance Values							
<i>Field Parameters</i>										
Conductivity	mS/cm	NC	NC	1.81	1.69	1.47	0.667	1.76	--	
Dissolved Oxygen	ug/L	NC	NC	630	--	170	2100	1410	--	
Oxidation reduction potential	millivolts	NC	NC	-121	--	56	--	38	--	
Temperature, Field	Deg C	NC	NC	18.4	15.7	13.2	5.1	16.5	--	
Turbidity	NTU	5	NC	15.9	1000 >	8.2	6	13.4	--	
pH	pH units	6.5-8.5	NC	7.13	7.3	6.34	7.01	6.66	--	

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.  
 Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.  
 considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.8

**VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	MW-10	MW-10	MW-11	MW-11	MW-11	MW-11			
Sample Name:	GW-37191-012209-JJW-015	WG-37191-072009-011	WG-37191-091908-001	GW-37191-012209-JJW-016	GW-37191-012209-JJW-017	WG-37191-072009-006			
Sample Date:	1/22/2009	7/20/2009	9/19/2008	1/22/2009	1/22/2009 <i>Duplicate</i>	7/20/2009			
<i>New York State Water Quality</i>									
<i>Volatile Organic Compounds</i>	<i>Units</i>	<i>Standards</i>	<i>Guidance Values</i>						
1,1,1-Trichloroethane	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,1,2-Trichloroethane	ug/L	1	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,1-Dichloroethane	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,1-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	1.5 J
1,2,4-Trichlorobenzene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	5.0 UJ	5.0 U	250 U	25 U	25 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	5.0 U	5.0 U	250 UJ	25 U	25 U	5.0 U
1,2-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,2-Dichloroethane	ug/L	0.6	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,2-Dichloropropane	ug/L	1	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,3-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
1,4-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	3.6 J	5.0 U	250 U	25 U	25 U	5.0 U
2-Hexanone	ug/L	NC	50	5.0 UJ	5.0 U	250 U	25 U	25 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	5.0 UJ	5.0 U	250 U	25 U	25 U	5.0 U
Acetone	ug/L	NC	50	20 UJ	20 UJ	1000 U	100 U	100 U	12 J
Benzene	ug/L	1	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Bromodichloromethane	ug/L	NC	50	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Bromoform	ug/L	NC	50	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Carbon disulfide	ug/L	60	60	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Carbon tetrachloride	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Chlorobenzene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Chloroethane	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Chloroform (Trichloromethane)	ug/L	7	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	<b>3500</b>	<b>610</b>	<b>620</b>	<b>350</b>
cis-1,3-Dichloropropene	ug/L	NC	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Cyclohexane	ug/L	NC	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Dibromochloromethane	ug/L	NC	50	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	5.0 UJ	5.0 U	250 U	25 U	25 U	5.0 U
Ethylbenzene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Isopropylbenzene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Methyl acetate	ug/L	NC	NC	5.0 UJ	5.0 U	250 UJ	25 U	25 U	5.0 U
Methyl cyclohexane	ug/L	NC	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Methyl Tert Butyl Ether	ug/L	NC	10	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Methylene chloride	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Styrene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Tetrachloroethene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Toluene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	<b>5.6</b>
trans-1,3-Dichloropropene	ug/L	NC	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Trichloroethene	ug/L	5	NC	5.0 U	0.86 J	<b>1700</b>	<b>280</b>	<b>280</b>	<b>120</b>
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	5.0 U	5.0 U	250 U	25 UJ	25 UJ	5.0 U
Trifluorotrchloroethane (Freon 113)	ug/L	5	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Vinyl chloride	ug/L	2	NC	5.0 U	5.0 U	250 U	25 U	25 U	5.0 U
Xylene (total)	ug/L	NC	NC	15 U	15 U	750 U	75 U	75 U	15 U

TABLE 6.8

**VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

<i>Location ID:</i>	<i>MW-10</i>	<i>MW-10</i>	<i>MW-11</i>	<i>MW-11</i>	<i>MW-11</i>	<i>MW-11</i>
<i>Sample Name:</i>	GW-37191-012209-JJW-015	WG-37191-072009-011	WG-37191-091908-001	GW-37191-012209-JJW-016	GW-37191-012209-JJW-017	WG-37191-072009-006
<i>Sample Date:</i>	1/22/2009	7/20/2009	9/19/2008	1/22/2009	1/22/2009 <i>Duplicate</i>	7/20/2009

	<i>New York State Water Quality</i>									
	<i>Units</i>	<i>Standards</i>	<i>Guidance Values</i>							
<i>Field Parameters</i>										
Conductivity	mS/cm	NC	NC	0.001	1.147	--	0.002	0.002	1.351	
Dissolved Oxygen	ug/L	NC	NC	11500	1390	--	10100	10100	1280	
Oxidation reduction potential	millivolts	NC	NC	--	133	--	--	--	71	
Temperature, Field	Deg C	NC	NC	7.3	17.82	--	8.2	8.2	20.82	
Turbidity	NTU	5	NC	<b>241</b>	0.53	--	<b>235</b>	<b>235</b>	<b>20.2</b>	
pH	pH units	6.5-8.5	NC	7.39	7.96	--	7.65	7.65	7.65	

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.  
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.  
considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

Location ID:	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12
Sample Name:	WG-37191-082107-RN-004	WG-37191-082107-RN-005	WG-37191-052808-006	WG-37191-052808-007	GW-37191-011309-JJW-005	WG-37191-072209-036
Sample Date:	8/21/2007	8/21/2007	5/28/2008	5/28/2008	1/13/2009	7/22/2009
		Duplicate		Duplicate		
	New York State Water Quality					
	Units	Standards	Guidance Values			
<i>Volatile Organic Compounds</i>						
1,1,1-Trichloroethane	ug/L	5	NC	15000 U	1200 U	2500 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	15000 U	1200 U	2500 U
1,1,2-Trichloroethane	ug/L	1	NC	15000 U	1200 U	2500 U
1,1-Dichloroethane	ug/L	5	NC	15000 U	1200 U	2500 U
1,1-Dichloroethene	ug/L	5	NC	15000 U	1200 U	2500 U
1,2,4-Trichlorobenzene	ug/L	5	NC	15000 U	1200 U	2500 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	15000 U	1200 U	2500 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	15000 U	1200 U	2500 U
1,2-Dichlorobenzene	ug/L	3	NC	15000 U	1200 U	2500 U
1,2-Dichloroethane	ug/L	0.6	NC	15000 U	1200 U	2500 U
1,2-Dichloropropane	ug/L	1	NC	15000 U	1200 U	2500 U
1,3-Dichlorobenzene	ug/L	3	NC	15000 U	1200 U	2500 U
1,4-Dichlorobenzene	ug/L	3	NC	15000 U	1200 U	2500 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	15000 U	1200 U	2500 U
2-Hexanone	ug/L	NC	50	15000 U	1200 U	2500 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	15000 U	1200 U	2500 U
Acetone	ug/L	NC	50	60000 UJ	5000 U	10000 U
Benzene	ug/L	1	NC	15000 U	1200 U	2500 U
Bromodichloromethane	ug/L	NC	50	15000 U	1200 U	2500 U
Bromoform	ug/L	NC	50	15000 U	1200 U	2500 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	15000 U	1200 U	2500 U
Carbon disulfide	ug/L	60	60	15000 U	1200 U	2500 U
Carbon tetrachloride	ug/L	5	NC	15000 U	1200 U	2500 U
Chlorobenzene	ug/L	5	NC	15000 U	1200 U	2500 U
Chloroethane	ug/L	5	NC	15000 U	1200 UJ	2500 U
Chloroform (Trichloromethane)	ug/L	7	NC	15000 U	1200 U	2500 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	15000 U	1200 U	2500 U
cis-1,2-Dichloroethene	ug/L	5	NC	<b>65000 J</b>	<b>25000 J</b>	<b>15000</b>
cis-1,3-Dichloropropene	ug/L	NC	NC	15000 U	1200 U	2500 U
Cyclohexane	ug/L	NC	NC	15000 U	1200 U	2500 U
Dibromochloromethane	ug/L	NC	50	15000 U	1200 U	2500 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	15000 UJ	1200 U	2500 U
Ethylbenzene	ug/L	5	NC	15000 U	1200 U	2500 U
Isopropylbenzene	ug/L	5	NC	15000 U	1200 U	2500 U
Methyl acetate	ug/L	NC	NC	15000 U	1200 U	2500 U
Methyl cyclohexane	ug/L	NC	NC	15000 U	1200 U	2500 U
Methyl Tert Butyl Ether	ug/L	NC	10	15000 U	1200 U	2500 U
Methylene chloride	ug/L	5	NC	15000 U	1200 U	2500 U
Styrene	ug/L	5	NC	15000 U	1200 U	2500 U
Tetrachloroethene	ug/L	5	NC	15000 U	1200 U	<b>640 J</b>
Toluene	ug/L	5	NC	15000 U	1200 U	2500 U
trans-1,2-Dichloroethene	ug/L	5	NC	15000 U	1200 U	2500 U
trans-1,3-Dichloropropene	ug/L	NC	NC	15000 U	1200 U	2500 U
Trichloroethene	ug/L	5	NC	<b>190000 J</b>	<b>26000 J</b>	<b>81000</b>
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	15000 U	1200 U	2500 U
Trifluorotrchloroethane (Freon 113)	ug/L	5	NC	15000 UJ	1200 UJ	2500 U
Vinyl chloride	ug/L	2	NC	15000 U	<b>760 J</b>	<b>760 J</b>
Xylene (total)	ug/L	NC	NC	45000 U	3800 U	7500 U

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

Location ID:	MW-12	MW-12	MW-12	MW-12	MW-12	MW-12
Sample Name:	WG-37191-082107-RN-004	WG-37191-082107-RN-005	WG-37191-052808-006	WG-37191-052808-007	GW-37191-011309-JJW-005	WG-37191-072209-036
Sample Date:	8/21/2007	8/21/2007	5/28/2008	5/28/2008	1/13/2009	7/22/2009
		Duplicate		Duplicate		

	New York State Water Quality									
	Units	Standards	Guidance Values							
<i>Field Parameters</i>										
Conductivity	mS/cm	NC	NC	2.17	--	99.9 >	--	0.23	0.817	
Dissolved Oxygen	ug/L	NC	NC	--	--	3240	--	3200	800	
Oxidation reduction potential	millivolts	NC	NC	--	--	94	--	--	39	
Temperature, Field	Deg C	NC	NC	14.1	--	--	--	6.4	17.89	
Turbidity	NTU	5	NC	102	--	221	--	16.1	46.9	
pH	pH units	6.5-8.5	NC	7.26	--	6.43	--	6.87	7.37	

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.  
 Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.  
 considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.8

**VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18
Sample Name:	WG-37191-052808-009	GW-37191-012009-JJW-010	WG-37191-072009-013	GW-37191-011309-JJW-003	GW-37191-011309-JJW-004	WG-37191-072209-042
Sample Date:	5/28/2008	1/20/2009	7/20/2009	1/13/2009	1/13/2009 <i>Duplicate</i>	7/22/2009
<i>New York State Water Quality</i>						
	Units	Standards	Guidance Values			
<i>Volatile Organic Compounds</i>						
1,1,1-Trichloroethane	ug/L	5	NC	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	1	NC	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5	NC	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	0.6	NC	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1	NC	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	3	NC	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	5.0 U	5.0 U	5.0 U
2-Hexanone	ug/L	NC	50	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	5.0 U	5.0 U	5.0 U
Acetone	ug/L	NC	50	21 U	20 U	11 J
Benzene	ug/L	1	NC	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	NC	50	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	NC	50	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	5.0 U	5.0 UJ	5.0 U
Carbon disulfide	ug/L	60	60	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5	NC	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U
Chloroethane	ug/L	5	NC	5.0 U	5.0 UJ	5.0 U
Chloroform (Trichloromethane)	ug/L	7	NC	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5	NC	1.8 J	5.0 U	5.0 U
cis-1,3-Dichloropropene	ug/L	NC	NC	5.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	NC	NC	5.0 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	NC	50	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-11)	ug/L	5	NC	5.0 U	5.0 U	5.0 U
Ethylbenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	5	NC	5.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	NC	NC	5.0 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	NC	NC	5.0 U	5.0 U	5.0 U
Methyl Tert Butyl Ether	ug/L	NC	10	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5	NC	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5	NC	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5	NC	5.0 U	5.0 U	5.0 U
Toluene	ug/L	5	NC	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5	NC	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	NC	NC	5.0 U	5.0 U	5.0 U
Trichloroethene	ug/L	5	NC	5.1	0.86 J	5.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	5.0 U	5.0 U	5.0 U
Trifluorotrchloroethane (Freon 113)	ug/L	5	NC	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2	NC	5.0 U	5.0 U	5.0 U
Xylene (total)	ug/L	NC	NC	15 U	15 U	15 U



TABLE 6.8

**VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	MW-17	MW-17	MW-17	MW-18	MW-18	MW-18
Sample Name:	WG-37191-052808-009	GW-37191-012009-JJW-010	WG-37191-072009-013	GW-37191-011309-JJW-003	GW-37191-011309-JJW-004	WG-37191-072209-042
Sample Date:	5/28/2008	1/20/2009	7/20/2009	1/13/2009	1/13/2009 <i>Duplicate</i>	7/22/2009

	<i>New York State Water Quality</i>									
	<i>Units</i>	<i>Standards</i>	<i>Guidance Values</i>							
<b>Field Parameters</b>										
Conductivity	mS/cm	NC	NC	1.84	1.1	1.93	0.579	0.579	1.66	
Dissolved Oxygen	ug/L	NC	NC	3220	800	810	940	940	1420	
Oxidation reduction potential	millivolts	NC	NC	229	--	146	--	--	-50	
Temperature, Field	Deg C	NC	NC	13	7.1	15.95	8.5	8.5	14.72	
Turbidity	NTU	5	NC	1.8	<b>22.3</b>	0.98	<b>35.7</b>	<b>35.7</b>	<b>5.3</b>	
pH	pH units	6.5-8.5	NC	6.7	6.95	7.9	6.8	6.8	7.2	

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.  
Sample results identified as off-Site are compared to the Restricted Use - Residential SCO.  
considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

Location ID:	MW-19	MW-20	MW-22
Sample Name:	WG-37191-072009-002	WG-37191-072209-032	WG-37191-072009-004
Sample Date:	7/20/2009	7/22/2009	7/20/2009

Volatile Organic Compounds	<i>New York State Water Quality</i>			MW-19	MW-20	MW-22
	Units	Standards	Guidance Values			
1,1,1-Trichloroethane	ug/L	5	NC	500 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	500 U	5.0 UJ	5.0 U
1,1,2-Trichloroethane	ug/L	1	NC	500 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5	NC	500 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	5	NC	500 U	1.3 J	5.0 U
1,2,4-Trichlorobenzene	ug/L	5	NC	500 U	5.0 UJ	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	500 U	5.0 UJ	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	500 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	3	NC	500 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	0.6	NC	500 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1	NC	500 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	3	NC	500 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	3	NC	500 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	500 U	5.0 U	5.0 U
2-Hexanone	ug/L	NC	50	500 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	500 U	5.0 U	5.0 U
Acetone	ug/L	NC	50	2000 UJ	20 U	20 UJ
Benzene	ug/L	1	NC	500 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	NC	50	500 U	5.0 U	5.0 U
Bromoform	ug/L	NC	50	500 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	500 U	5.0 U	5.0 U
Carbon disulfide	ug/L	60	60	500 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5	NC	500 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5	NC	500 U	5.0 U	5.0 U
Chloroethane	ug/L	5	NC	500 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	7	NC	500 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	500 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5	NC	<b>410 J</b>	<b>89</b>	1.5 J
cis-1,3-Dichloropropene	ug/L	NC	NC	500 U	5.0 U	5.0 U
Cyclohexane	ug/L	NC	NC	500 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	NC	50	500 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-11)	ug/L	5	NC	500 U	5.0 U	5.0 U
Ethylbenzene	ug/L	5	NC	500 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	5	NC	500 U	5.0 U	5.0 U
Methyl acetate	ug/L	NC	NC	500 U	5.0 UJ	5.0 U
Methyl cyclohexane	ug/L	NC	NC	500 U	5.0 U	5.0 U
Methyl Tert Butyl Ether	ug/L	NC	10	500 U	5.0 U	5.0 U
Methylene chloride	ug/L	5	NC	500 U	5.0 U	5.0 U
Styrene	ug/L	5	NC	500 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5	NC	500 U	5.0 U	5.0 U
Toluene	ug/L	5	NC	500 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5	NC	500 U	3.0 J	5.0 U
trans-1,3-Dichloropropene	ug/L	NC	NC	500 U	5.0 U	5.0 U
Trichloroethene	ug/L	5	NC	<b>15000</b>	<b>19</b>	<b>30</b>
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	500 U	5.0 U	5.0 U
Trifluorotrchloroethane (Freon 113)	ug/L	5	NC	500 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2	NC	500 U	<b>5.5</b>	5.0 U
Xylene (total)	ug/L	NC	NC	1500 U	15 U	4.3 J

TABLE 6.8

VOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

<i>Location ID:</i>	<i>MW-19</i>	<i>MW-20</i>	<i>MW-22</i>
<i>Sample Name:</i>	WG-37191-072009-002	WG-37191-072209-032	WG-37191-072009-004
<i>Sample Date:</i>	7/20/2009	7/22/2009	7/20/2009

*New York State Water Quality*  
*Units      Standards      Guidance Values*

*Field Parameters*

Conductivity	mS/cm	NC	NC	1.92	2.83	1.82
Dissolved Oxygen	ug/L	NC	NC	780	1570	1780
Oxidation reduction potential	millivolts	NC	NC	271	-158	-105
Temperature, Field	Deg C	NC	NC	20.81	10.03	15.22
Turbidity	NTU	5	NC	1.43	<b>5.81</b>	<b>10</b>
pH	pH units	6.5-8.5	NC	7.24	7.08	6.97

<sup>1</sup> - Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.

Sample results identified as off-Site are compared to the Restricted Use - Residential SCO. Considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.9

SVOC ANALYTICAL RESULTS SUMMARY - OVERBURDEN GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

Location ID: Sample Name: Sample Date:	MW-4 WG-37191-082107-RN-001 8/21/2007		MW-4 WG-37191-082107-RN-002 8/21/2007 Duplicate		MW-4 WG-37191-052808-003 5/28/2008		MW-4 WG-37191-052808-004 5/28/2008 Duplicate		MW-9 WG-37191-082107-RN-007 8/21/2007		MW-9 WG-37191-052808-001 5/28/2008	
	Units	Standards	Quality	Guidance Values								
<b>Semivolatile Organic Compounds</b>												
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
2,4,5-Trichlorophenol	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
2,4,6-Trichlorophenol	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
2,4-Dichlorophenol	ug/L	5	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
2,4-Dimethylphenol	ug/L	NC	50	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
2,4-Dinitrophenol	ug/L	NC	10	53 UJ	52 UJ	47 U	48 U	50 UJ	48 U			
2,4-Dinitrotoluene	ug/L	5	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
2,6-Dinitrotoluene	ug/L	5	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
2-Chloronaphthalene	ug/L	NC	10	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
2-Chlorophenol	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
2-Methylnaphthalene	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	0.62 J	1.9 U			
2-Methylphenol	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
2-Nitroaniline	ug/L	5	NC	53 U	52 U	47 U	48 U	50 U	48 U			
2-Nitrophenol	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
3,3'-Dichlorobenzidine	ug/L	5	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
3-Nitroaniline	ug/L	5	NC	53 U	52 U	47 U	48 U	50 U	48 U			
4,6-Dinitro-2-methylphenol	ug/L	NC	NC	53 U	52 U	47 U	48 U	50 U	48 U			
4-Bromophenyl phenyl ether	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
4-Chloro-3-methylphenol	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
4-Chloroaniline	ug/L	5	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
4-Chlorophenyl phenyl ether	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
4-Methylphenol	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
4-Nitroaniline	ug/L	5	NC	53 U	52 U	47 U	48 U	50 U	48 U			
4-Nitrophenol	ug/L	NC	NC	53 U	52 U	47 U	48 U	50 U	48 U			
Acenaphthene	ug/L	NC	20	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Acenaphthylene	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Acetophenone	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Anthracene	ug/L	NC	50	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Atrazine	ug/L	7.5	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Benzaldehyde	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Benzo(a)anthracene	ug/L	NC	0.002	2.1 U	<b>0.84 J</b>	1.9 U	1.9 U	2.0 U	1.9 U			
Benzo(a)pyrene	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Benzo(b)fluoranthene	ug/L	NC	0.002	2.1 U	<b>0.81 J</b>	1.9 U	1.9 U	2.0 U	1.9 U			
Benzo(g,h,i)perylene	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Benzo(k)fluoranthene	ug/L	NC	0.002	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Biphenyl (1,1-Biphenyl)	ug/L	5	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
bis(2-Chloroethoxy)methane	ug/L	5	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
bis(2-Chloroethyl)ether	ug/L	1	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
bis(2-Ethylhexyl)phthalate	ug/L	5	NC	2.1 J	1.4 J	9.4 U	9.5 U	2.4 J	9.5 U			
Butyl benzylphthalate	ug/L	NC	50	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
Caprolactam	ug/L	NC	NC	260	370	5.6 U	5.7 U	1200	5.7 U			
Carbazole	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Chrysene	ug/L	NC	0.002	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Dibenz(a,h)anthracene	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Dibenzofuran	ug/L	NC	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
Diethyl phthalate	ug/L	NC	50	11 U	3.0 J	9.4 U	9.5 U	9.9 U	9.5 U			
Dimethyl phthalate	ug/L	NC	50	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
Di-n-butylphthalate	ug/L	50	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
Di-n-octyl phthalate	ug/L	NC	50	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
Fluoranthene	ug/L	NC	50	2.1 U	1.5 J	1.9 U	1.9 U	2.0 U	1.9 U			
Fluorene	ug/L	NC	50	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Hexachlorobenzene	ug/L	0.04	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Hexachlorobutadiene	ug/L	0.5	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Hexachlorocyclopentadiene	ug/L	5	NC	11 UJ	10 UJ	9.4 U	9.5 U	9.9 UJ	9.5 U			
Hexachloroethane	ug/L	5	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
Indeno(1,2,3-cd)pyrene	ug/L	NC	0.002	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Isothorone	ug/L	NC	50	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
Naphthalene	ug/L	NC	10	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Nitrobenzene	ug/L	0.4	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
N-Nitrosodi-n-propylamine	ug/L	NC	NC	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
N-Nitrosodiphenylamine	ug/L	NC	50	2.1 U	2.1 U	1.9 U	1.9 U	2.0 U	1.9 U			
Pentachlorophenol	ug/L	1	NC	11 U	10 U	9.4 U	9.5 U	9.9 U	9.5 U			
Phenanthrene	ug/L	NC	50	0.76 J	1.1 J	1.9 U	1.9 U	2.0 U	1.9 U			
Phenol	ug/L	1	NC	2.1 U	0.59 J	1.9 U	1.9 U	0.72 J	1.9 U			
Pyrene	ug/L	NC	50	0.72 J	1.2 J	1.9 U	1.9 U	2.0 U	1.9 U			

Notes:

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.10

**VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	MW-5A	MW-5A	MW-5A	MW-6A	MW-7A	MW-7A			
Sample Name:	GW-37191-012009-JJW-012	WG-37191-072209-038	WG-37191-072209-039	WG-37191-072209-033	GW-37191-012109-JJW-014	WG-37191-072209-029			
Sample Date:	1/20/2009	7/22/2009	7/22/2009	7/22/2009	1/21/2009	7/22/2009			
	Quality			Duplicate					
	Units	Standards	Guidance Values						
<i>Volatile Organic Compounds</i>									
1,1,1-Trichloroethane	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	10000 U	120 U	1000 UJ	12 UJ	5.0 U	5.0 UJ
1,1,2-Trichloroethane	ug/L	1	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	5	NC	10000 U	<b>40 J</b>	1000 U	12 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5	NC	10000 U	120 U	1000 UJ	12 UJ	5.0 U	5.0 UJ
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	10000 U	120 U	1000 UJ	12 UJ	5.0 UJ	5.0 UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	3	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	0.6	NC	10000 U	120 U	<b>320 J</b>	12 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	1	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	3	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	3	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	NC	50	10000 U	120 U	1000 U	12 U	5.0 UJ	5.0 U
2-Hexanone	ug/L	NC	50	10000 U	120 U	1000 U	12 U	5.0 UJ	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	10000 U	120 U	120 J	12 U	5.0 UJ	5.0 U
Acetone	ug/L	NC	50	40000 U	<b>280 J</b>	4000 U	22 J	20 UJ	20 U
Benzene	ug/L	1	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	NC	50	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Bromoform	ug/L	NC	50	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	10000 UJ	120 U	1000 U	12 U	5.0 U	5.0 U
Carbon disulfide	ug/L	60	60	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Chloroethane	ug/L	5	NC	10000 UJ	120 U	1000 U	12 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	7	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5	NC	<b>71000</b>	<b>18000</b>	<b>27000</b>	<b>30</b>	5.0 U	0.90 J
cis-1,3-Dichloropropene	ug/L	NC	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Cyclohexane	ug/L	NC	NC	10000 U	120 U	1000 U	290	5.0 U	5.0 U
Dibromochloromethane	ug/L	NC	50	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 UJ	5.0 U
Ethylbenzene	ug/L	5	NC	10000 U	120 U	1000 U	2.9 J	5.0 U	5.0 U
Isopropylbenzene	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Methyl acetate	ug/L	NC	NC	10000 U	120 U	1000 UJ	12 UJ	5.0 UJ	5.0 UJ
Methyl cyclohexane	ug/L	NC	NC	10000 U	120 U	1000 U	130	5.0 U	5.0 U
Methyl Tert Butyl Ether	ug/L	NC	10	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Methylene chloride	ug/L	5	NC	10000 U	<b>80 J</b>	<b>240 J</b>	12 U	5.0 U	5.0 U
Styrene	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5	NC	10000 U	<b>45 J</b>	1000 U	12 U	5.0 U	5.0 U
Toluene	ug/L	5	NC	10000 U	<b>24 J</b>	1000 U	12 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5	NC	10000 U	<b>66 J</b>	1000 U	12 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	NC	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Trichloroethene	ug/L	5	NC	<b>290000</b>	<b>24000</b>	<b>35000</b>	12 U	5.0 U	5.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Trifluorotrchloroethane (Freon 113)	ug/L	5	NC	10000 U	120 U	1000 U	12 U	5.0 U	5.0 U
Vinyl chloride	ug/L	2	NC	10000 U	<b>83 J</b>	1000 U	12 U	5.0 U	5.0 U
Xylene (total)	ug/L	NC	NC	30000 U	110 J	3000 U	17 J	15 U	15 U

TABLE 6.10

**VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

<i>Location ID:</i>	MW-5A	MW-5A	MW-5A	MW-6A	MW-7A	MW-7A
<i>Sample Name:</i>	GW-37191-012009-JJW-012	WG-37191-072209-038	WG-37191-072209-039	WG-37191-072209-033	GW-37191-012109-JJW-014	WG-37191-072209-029
<i>Sample Date:</i>	1/20/2009	7/22/2009	7/22/2009	7/22/2009	1/21/2009	7/22/2009
			<i>Duplicate</i>			

	<i>Units</i>	<i>Quality</i>								
		<i>Standards</i>	<i>Guidance Values</i>							
<i>Field Parameters</i>										
Conductivity	mS/cm	NC	NC	2.85	--	--	0.856	1.58	1.409	
Dissolved Oxygen	ug/L	NC	NC	480	--	--	620	0	1410	
Oxidation reduction potential	millivolts	NC	NC	--	--	--	-217	--	-251	
Temperature, Field	Deg C	NC	NC	9.4	--	--	13.26	10.9	14.94	
Turbidity	NTU	5	NC	151	--	--	244	38.4	20.1	
pH	pH units	6.5-8.5	NC	8.83	--	--	7.54	6.72	7.65	

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.10

**VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	MW-9A	MW-9A	MW-13A	MW-13A	MW-14A	MW-14A	MW-15A
Sample Name:	GW-37191-011909-JJW-007	WG-37191-072109-014	GW-37191-011909-JJW-008	WG-37191-072209-034	GW-37191-012209-JJW-018	WG-37191-072009-005	GW-37191-012309-JJW-019
Sample Date:	1/19/2009	7/21/2009	1/19/2009	7/22/2009	1/22/2009	7/20/2009	1/23/2009
	<i>Units</i>						
<i>Volatile Organic Compounds</i>							
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	2000 U	1200 UJ	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	1.4 J
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	2000 U	1200 UJ	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	2000 U	1200 UJ	5.0 U	5.0 UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	20	5.0 UJ	2000 U	1200 U	5.0 U	2.7 J
2-Hexanone	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 UJ
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 UJ
Acetone	ug/L	20 U	20 UJ	8000 U	5000 U	20 U	20 UJ
Benzene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Bromoform	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5.0 UJ	5.0 U	2000 UJ	1200 U	5.0 U	5.0 UJ
Carbon disulfide	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Chloroethane	ug/L	5.0 UJ	5.0 U	2000 UJ	1200 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	2.6 J
Chloromethane (Methyl Chloride)	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	<b>58000</b>	<b>42000</b>	<b>140</b>	<b>120</b>
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Cyclohexane	ug/L	1.2 J	2.0 J	2000 U	1200 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	2000 U	1200 UJ	5.0 U	5.0 UJ
Methyl cyclohexane	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Methyl Tert Butyl Ether	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5.0 U	5.0 U	2000 U	1200 U	1.3 J	2.2 J
Toluene	ug/L	5.0 U	5.0 U	2000 U	1200 U	1.1 J	5.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	<b>350 J</b>	1200 U	0.83 J	0.88 J
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Trichloroethene	ug/L	5.0 U	5.0 U	<b>160000</b>	<b>39000</b>	<b>140</b>	<b>190</b>
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 UJ	5.0 U
Trifluorotrchloroethane (Freon 113)	ug/L	5.0 U	5.0 U	2000 U	1200 U	5.0 U	5.0 U
Vinyl chloride	ug/L	5.0 U	5.0 U	<b>850 J</b>	<b>530 J</b>	5.0 U	5.0 U
Xylene (total)	ug/L	15 U	15 U	6000 U	3800 U	15 U	4.3 J

TABLE 6.10

VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER  
 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

<i>Location ID:</i>	MW-9A	MW-9A	MW-13A	MW-13A	MW-14A	MW-14A	MW-15A
<i>Sample Name:</i>	GW-37191-011909-JJW-007	WG-37191-072109-014	GW-37191-011909-JJW-008	WG-37191-072209-034	GW-37191-012209-JJW-018	WG-37191-072009-005	GW-37191-012309-JJW-019
<i>Sample Date:</i>	1/19/2009	7/21/2009	1/19/2009	7/22/2009	1/22/2009	7/20/2009	1/23/2009

*Units**Field Parameters*

Conductivity	mS/cm	0.607	2.09	0.9	2	0.002	0.845	2.99
Dissolved Oxygen	ug/L	360	660	1910	900	9700	1140	0
Oxidation reduction potential	millivolts	--	-130	--	-74	--	-9	--
Temperature, Field	Deg C	10.2	12.52	8.8	15.17	9.9	12.18	12.1
Turbidity	NTU	<b>148</b>	<b>38.7</b>	<b>153</b>	<b>22</b>	<b>34</b>	<b>6.26</b>	<b>73</b>
pH	pH units	6.77	7.15	6.78	7.39	<b>6.2</b>	7.2	7.09

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.



TABLE 6.10

**VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Location ID:	MW-15A	MW-18A	MW-19A	MW-20A	MW-21A	MW-21A	MW-22A	
Sample Name:	WG-37191-072009-012	WG-37191-072209-041	WG-37191-072009-001	WG-37191-072209-031	WG-37191-072109-016	WG-37191-072109-017	WG-37191-072009-003	
Sample Date:	7/20/2009	7/22/2009	7/20/2009	7/22/2009	7/21/2009	7/21/2009	7/20/2009	
	<i>Duplicate</i>							
	<i>Units</i>							
<i>Volatile Organic Compounds</i>								
1,1,1-Trichloroethane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	s
1,1-Dichloroethene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	2.5 J	5.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 UJ	5.0 U
2-Hexanone	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Acetone	ug/L	20 UJ	6000 U	800 UJ	100 U	<b>110 J</b>	20 UJ	11 J
Benzene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Bromoform	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
Chloroethane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	1.1 J	<b>4600</b>	<b>1100</b>	<b>620</b>	<b>890</b>	<b>710 J</b>	5.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Cyclohexane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	22
Dibromochloromethane	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Ethylbenzene	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	1.0 J
Isopropylbenzene	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
Methyl acetate	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	17
Methyl Tert Butyl Ether	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	1500 U	200 U	<b>5.9 J</b>	50 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	1500 U	200 U	25 UJ	50 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Toluene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	1500 U	200 U	<b>5.5 J</b>	<b>11 J</b>	<b>7.2</b>	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Trichloroethene	ug/L	4.5 J	<b>26000</b>	<b>4600</b>	<b>200</b>	<b>2400</b>	<b>1900 J</b>	5.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Trifluorotrchloroethane (Freon 113)	ug/L	5.0 U	1500 U	200 U	25 U	50 U	5.0 U	5.0 U
Vinyl chloride	ug/L	5.0 U	1500 U	<b>70 J</b>	<b>14 J</b>	<b>26 J</b>	<b>42</b>	5.0 U
Xylene (total)	ug/L	4.3 J	1300 J	600 U	75 UJ	44 J	15 U	11 J

TABLE 6.10

**VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

<i>Location ID:</i>	MW-15A	MW-18A	MW-19A	MW-20A	MW-21A	MW-21A	MW-22A
<i>Sample Name:</i>	WG-37191-072009-012	WG-37191-072209-041	WG-37191-072009-001	WG-37191-072209-031	WG-37191-072109-016	WG-37191-072109-017	WG-37191-072009-003
<i>Sample Date:</i>	7/20/2009	7/22/2009	7/20/2009	7/22/2009	7/21/2009	7/21/2009 <i>Duplicate</i>	7/20/2009

*Units**Field Parameters*

Conductivity	mS/cm	2.23	2.19	1.73	1.62	1.83	1.83	1.61
Dissolved Oxygen	ug/L	6820	980	1040	550	1930	1930	450
Oxidation reduction potential	millivolts	-11	-188	-78	-12	-100	-100	-133
Temperature, Field	Deg C	15.29	12.51	13.62	14.57	15.28	15.28	12.9
Turbidity	NTU	<b>26.2</b>	<b>31.7</b>	<b>40</b>	<b>8.56</b>	<b>31.2</b>	<b>31.2</b>	<b>37.1</b>
pH	pH units	7.23	7.05	7.13	7.16	6.99	6.99	7.86

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.10

**VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

<i>Location ID:</i>	MW-23A	MW-23A	MW-24A	MW-25A
<i>Sample Name:</i>	WG-37191-072009-007	WG-37191-072009-008	WG-37191-072009-010	WG-37191-072009-009
<i>Sample Date:</i>	7/20/2009	7/20/2009	7/20/2009	7/20/2009
		<i>Duplicate</i>		
	<i>Units</i>			
<i>Volatile Organic Compounds</i>				
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	5.0 U	5.0 U	5.0 U
2-Hexanone	ug/L	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	5.0 U	5.0 U	5.0 U
Acetone	ug/L	20 UJ	20 UJ	11 J
Benzene	ug/L	5.0 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U	5.0 U
Bromoform	ug/L	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5.0 U	5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U	5.0 U
Chloroethane	ug/L	5.0 U	5.0 U	5.0 UJ
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5.0 U	5.0 U	5.0 UJ
cis-1,2-Dichloroethene	ug/L	0.99 J	5.0 U	5.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U
Cyclohexane	ug/L	7.4	7.4	0.78 J
Dibromochloromethane	ug/L	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5.0 U	5.0 U	5.0 UJ
Ethylbenzene	ug/L	5.0 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	5.0 U	5.0 U	5.0 U
Methyl acetate	ug/L	5.0 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	5.3	5.4	1.2 J
Methyl Tert Butyl Ether	ug/L	5.0 U	5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	5.0 U	5.0 U	5.0 U
Toluene	ug/L	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U	5.0 U
Trichloroethene	ug/L	1.6 J	5.0 U	5.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U	5.0 U
Trifluorotrchloroethane (Freon 113)	ug/L	5.0 U	5.0 U	5.0 U
Vinyl chloride	ug/L	5.0 U	5.0 U	5.0 U
Xylene (total)	ug/L	6.9 J	6.9 J	4.4 J
				15 U

TABLE 6.10

**VOC ANALYTICAL RESULTS SUMMARY - BEDROCK GROUNDWATER  
BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

<i>Location ID:</i>	MW-23A	MW-23A	MW-24A	MW-25A
<i>Sample Name:</i>	WG-37191-072009-007	WG-37191-072009-008	WG-37191-072009-010	WG-37191-072009-009
<i>Sample Date:</i>	7/20/2009	7/20/2009	7/20/2009	7/20/2009

*Duplicate*

**Units**

**Field Parameters**

Conductivity	mS/cm	1.7	1.7	2.57	1.036
Dissolved Oxygen	ug/L	3900	3900	2240	400
Oxidation reduction potential	millivolts	-271	-271	-170	-63
Temperature, Field	Deg C	13.55	13.55	15.38	17.73
Turbidity	NTU	<b>22.7</b>	<b>22.7</b>	<b>28.1</b>	<b>26.5</b>
pH	pH units	7.33	7.33	6.84	7.89

1.0 - Exceeds Criteria

U - Not present at the associated value.

J - Estimated concentration.

NC - No criteria.

TABLE 6.11

**ANALYTICAL RESULTS SUMMARY - SOIL VAPOR INTRUSION  
BCP REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

<i>Location ID:</i>	<i>82 Harrison</i>	<i>82 Harrison</i>	<i>82 Harrison</i>	<i>103 Harrison</i>	<i>103 Harrison</i>	<i>127 Harrison</i>	<i>127 Harrison</i>	<i>127 Harrison</i>	
<i>Sample Name:</i>	<i>IA-37191-111809-JDW-002</i>	<i>SS-37191-111809-JDW-002</i>	<i>SS-37191-111809-JDW-003</i>	<i>IA-37191-111809-JDW-001</i>	<i>SS-37191-111809-JDW-001</i>	<i>IA-37191-111809-JDW-004</i>	<i>IA-37191-111809-JDW-005</i>	<i>SS-37191-111809-JDW-005</i>	
<i>Sample Date:</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	
	<i>Duplicate</i>			<i>Duplicate</i>			<i>Duplicate</i>		
<i>Volatile Organic Compounds</i>	<i>Units</i>								
1,1,1-Trichloroethane	ug/m3	0.44 U	0.90	0.85	0.44 U	0.44 U	0.96	0.96	440 U
1,1,2,2-Tetrachloroethane	ug/m3	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	0.55 U	550 U
1,1,2-Trichloroethane	ug/m3	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	0.44 U	440 U
1,1-Dichloroethane	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	320 U
1,1-Dichloroethene	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	0.30 J	0.28 J	280 J
1,2,4-Trichlorobenzene	ug/m3	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3000 U
1,2,4-Trimethylbenzene	ug/m3	1.2	1.1	3.1	9.4	0.94	8.4	3.7	390 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/m3	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	0.61 U	620 U
1,2-Dichlorobenzene	ug/m3	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	480 U
1,2-Dichloroethane	ug/m3	0.32 U	0.32 U	0.32 U	0.34	0.32 U	0.32 U	0.32 U	320 U
1,2-Dichloropropane	ug/m3	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	370 U
1,2-Dichlorotetrafluoroethane (CFC 114)	ug/m3	0.12 J	0.10 J	0.098 J	0.11 J	0.56 U	0.56 U	0.56 U	560 U
1,3,5-Trimethylbenzene	ug/m3	0.39 J	0.32 J	0.92	3.6	0.34 J	2.9	1.6	390 U
1,3-Dichlorobenzene	ug/m3	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	0.48 U	480 U
1,4-Dichlorobenzene	ug/m3	0.31 J	0.48 U	0.48 U	0.42 J	0.48 U	0.20 J	0.48 U	480 U
1,4-Dioxane	ug/m3	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	0.72 U	720 U
2,2,4-Trimethylpentane	ug/m3	0.69 J	0.088 J	0.18 J	0.70 J	0.93 U	0.95	0.99	940 U
2-Butanone (Methyl Ethyl Ketone)	ug/m3	2.9	2.0	1.6	18	2.8	3.1	4.5	950 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/m3	0.68 J	0.26 J	0.24 J	2.0	0.26 J	0.77 J	0.90	820 U
Benzene	ug/m3	1.3	0.41	0.40	1.8	0.38	3.6	3.6	260 U
Benzyl Chloride	ug/m3	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	830 U
Bromodichloromethane	ug/m3	0.13 J	0.54 U	0.54 U	1.5	0.54 U	0.54 U	0.54 U	540 U
Bromoform	ug/m3	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	0.83 U	830 U
Bromomethane (Methyl Bromide)	ug/m3	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U	310 U
Carbon tetrachloride	ug/m3	0.48 J	0.19 J	0.19 J	0.49 J	0.31 J	0.47 J	0.47 J	500 U
Chlorobenzene	ug/m3	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	0.37 U	370 U
Chloroethane	ug/m3	0.049 J	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	210 U
Chloroform (Trichloromethane)	ug/m3	0.32 J	0.13 J	0.13 J	4.1	0.29 J	0.38 J	0.41	390 U
Chloromethane (Methyl Chloride)	ug/m3	0.88	0.15 J	0.14 J	1.4	0.27 J	1.4	1.4	410 U
cis-1,2-Dichloroethene	ug/m3	0.32 U	0.35	0.32 U	2.3	0.32 U	57	55	54000
cis-1,3-Dichloropropene	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	360 U
Cyclohexane	ug/m3	0.44 J	0.23 J	0.26 J	5.0	0.96	1.2	0.86	690 U
Dibromochloromethane	ug/m3	0.68 U	0.68 U	0.68 U	0.49 J	0.68 U	0.68 U	0.68 U	680 U
Dichlorodifluoromethane (CFC-12)	ug/m3	2.2	2.3	2.2	2.0	1.2	4.7	4.7	400 U
Ethylbenzene	ug/m3	1.0	0.38	1.1	11	0.62	2.4	2.3	350 U
Hexachlorobutadiene	ug/m3	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4300 U
Hexane	ug/m3	1.8	0.78	0.88	2.9	0.86	4.3	4.0	80 J
m&p-Xylene	ug/m3	3.4	1.6	7.8	38	2.2	8.7	8.1	350 U
Methyl Tert Butyl Ether	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1400 U
Methylene chloride	ug/m3	2.0	0.79 U	1.1	150	0.69 U	3.5	2.9	430 J
o-Xylene	ug/m3	1.2	0.64	2.6	11	0.72	3.6	3.2	350 U
Styrene	ug/m3	1.2	0.100 J	0.11 J	1.6	0.19 J	2.0	1.5	340 U
Tert-Butyl Alcohol	ug/m3	0.18 J	0.13 J	0.18 J	0.71 J	0.22 J	0.21 J	0.33 J	970 U
Tetrachloroethene	ug/m3	0.49 J	0.97	0.50 J	0.87	0.36 J	3.1	3.5	780
Toluene	ug/m3	5.1	1.5	2.7	24	2.2	11	11	300 U
trans-1,2-Dichloroethene	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U	0.32 U	1.0	0.98	1000
trans-1,3-Dichloropropene	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	0.36 U	360 U
Trichloroethene	ug/m3	0.41	1.8	0.29	15	0.17 J	78	77	73000
Trichlorofluoromethane (CFC-11)	ug/m3	36	11	10	5.2	4.5	2.7	2.7	450 U
Trifluorotrichloroethane (Freon 113)	ug/m3	0.59 J	0.51 J	0.49 J	0.68	0.60 J	1.1	1.1	610 U
Vinyl chloride	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	200 U
Helium	%	--	0.51	0.52	--	0.24 U	--	--	0.72

U - Not present at the associated value.

J - Estimated concentration.

TABLE 6.11

**ANALYTICAL RESULTS SUMMARY - SOIL VAPOR INTRUSION  
BCP REMEDIAL SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

<i>Location ID:</i>	<i>138 Harrison</i>	<i>138 Harrison</i>	<i>Up Wind</i>	<i>Up Wind</i>	
<i>Sample Name:</i>	<i>IA-37191-111809-JDW-003</i>	<i>SS-37191-111809-JDW-004</i>	<i>OA-37191-111809-JDW-001</i>	<i>OA-37191-111809-JDW-002</i>	
<i>Sample Date:</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	
				<i>Duplicate</i>	
<i>Volatile Organic Compounds</i>	<i>Units</i>				
1,1,1-Trichloroethane	ug/m3	0.44 U	0.44 U	0.44 U	0.44 U
1,1,2,2-Tetrachloroethane	ug/m3	0.55 U	0.55 U	0.55 U	0.55 U
1,1,2-Trichloroethane	ug/m3	0.48	0.44 U	0.44 U	0.44 U
1,1-Dichloroethane	ug/m3	0.25 J	0.32 U	0.32 U	0.32 U
1,1-Dichloroethene	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
1,2,4-Trichlorobenzene	ug/m3	3.0 U	3.0 U	3.0 U	3.0 U
1,2,4-Trimethylbenzene	ug/m3	0.73	0.18 J	0.43	1.9
1,2-Dibromoethane (Ethylene Dibromide)	ug/m3	0.61 U	0.61 U	0.61 U	0.61 U
1,2-Dichlorobenzene	ug/m3	0.48 U	0.48 U	0.48 U	0.48 U
1,2-Dichloroethane	ug/m3	3.6	0.32 U	0.32 U	0.32 U
1,2-Dichloropropane	ug/m3	0.37 U	0.37 U	0.37 U	0.37 U
1,2-Dichlorotetrafluoroethane (CFC 114)	ug/m3	0.56 U	0.56 U	0.56 U	0.56 U
1,3,5-Trimethylbenzene	ug/m3	0.23 J	0.39 U	0.16 J	0.60
1,3-Dichlorobenzene	ug/m3	0.48 U	0.48 U	0.48 U	0.48 U
1,4-Dichlorobenzene	ug/m3	0.48 U	0.17 J	0.48 U	0.48 U
1,4-Dioxane	ug/m3	0.72 U	0.72 U	0.72 U	0.72 U
2,2,4-Trimethylpentane	ug/m3	0.54 J	0.93 U	1.1	1.00
2-Butanone (Methyl Ethyl Ketone)	ug/m3	5.7	1.9	3.0	2.7
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/m3	0.70 J	0.18 J	0.32 J	0.26 J
Benzene	ug/m3	1.8	0.39	2.0	1.9
Benzyl Chloride	ug/m3	0.83 U	0.83 U	0.83 U	0.83 U
Bromodichloromethane	ug/m3	0.32 J	0.68	0.54 U	0.54 U
Bromoform	ug/m3	0.83 U	0.83 U	0.83 U	0.83 U
Bromomethane (Methyl Bromide)	ug/m3	0.31 U	0.31 U	0.31 U	0.31 U
Carbon tetrachloride	ug/m3	0.47 J	1.0	0.52	0.36 J
Chlorobenzene	ug/m3	0.24 J	0.37 U	0.37 U	0.37 U
Chloroethane	ug/m3	0.21 U	0.21 U	0.21 U	0.21 U
Chloroform (Trichloromethane)	ug/m3	0.93	3.7	0.11 J	0.099 J
Chloromethane (Methyl Chloride)	ug/m3	1.1	0.16 J	1.1	1.2
cis-1,2-Dichloroethene	ug/m3	0.11 J	0.11 J	0.32 U	0.32 U
cis-1,3-Dichloropropene	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U
Cyclohexane	ug/m3	0.48 J	0.69 U	0.66 J	0.62 J
Dibromochloromethane	ug/m3	0.68 U	0.68 U	0.68 U	0.68 U
Dichlorodifluoromethane (CFC-12)	ug/m3	2.2	1.6	2.1	2.2
Ethylbenzene	ug/m3	1.1	0.18 J	1.2	1.2
Hexachlorobutadiene	ug/m3	4.3 U	4.3 U	4.3 U	4.3 U
Hexane	ug/m3	2.5	0.71	2.4	2.2
m&p-Xylene	ug/m3	3.2	0.58	3.6	4.3
Methyl Tert Butyl Ether	ug/m3	1.4 U	1.4 U	1.4 U	1.4 U
Methylene chloride	ug/m3	3.5	1.3	2.6	1.7
o-Xylene	ug/m3	1.1	0.22 J	1.2	1.6
Styrene	ug/m3	2.5	0.12 J	2.5	4.1
Tert-Butyl Alcohol	ug/m3	0.32 J	0.35 J	0.21 J	0.15 J
Tetrachloroethene	ug/m3	0.51 J	0.80	0.91	0.82
Toluene	ug/m3	5.5	1.1	7.1	6.4
trans-1,2-Dichloroethene	ug/m3	0.32 U	0.32 U	0.32 U	0.32 U
trans-1,3-Dichloropropene	ug/m3	0.36 U	0.36 U	0.36 U	0.36 U
Trichloroethene	ug/m3	0.39	0.17 J	0.41	0.33
Trichlorofluoromethane (CFC-11)	ug/m3	1.4	1.3	1.5	1.3
Trifluorotrchloroethane (Freon 113)	ug/m3	1.4	0.76	1.1	1.1
Vinyl chloride	ug/m3	0.20 U	0.20 U	0.20 U	0.20 U
Helium	%	--	0.59	--	--

U - Not present at the associated value.

J - Estimated concentration.

TABLE 7.1

SELECTION OF ON-SITE EXPOSURE PATHWAY SCENARIOS  
 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 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
<u>Current/ Future:</u>	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 onto 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 onto 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.
<u>Future:</u>	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 7.2

SELECTION OF OFF-SITE EXPOSURE PATHWAY SCENARIOS  
 BROWNFIELD CLEANUP PROGRAM REMEDIAL SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 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
<u>Current/ Future:</u>	Surface Soil (0 to 2 ftbgs)	Surface Soil	Direct Contact	Trespasser	Adolescent	Ingestion Dermal Inhalation of particulates	off-Site	Potential exposure to contaminated surface soil while trespassing onto off-Site commercial/industrial properties.
			Direct Contact	Industrial Worker	Adult	Ingestion Dermal Inhalation of particulates	off-Site	Potential exposure to contaminated surface soil while working on off-Site commercial/industrial properties.
			Direct Contact	Resident	Adult/ Child	Ingestion Dermal Inhalation of particulates	off-Site	Potential exposure to contaminated surface soil during outdoor activities at home.
	Groundwater	Indoor Air	Direct Contact	Industrial Worker	Adult	Inhalation of vapors	off-Site	Potential exposure to VOCs in indoor air while working on off-Site commercial/industrial properties.
		Indoor Air	Direct Contact	Resident	Adult/ Child	Inhalation of vapors	off-Site	Potential exposure to VOCs in indoor air while at home.
	<u>Future:</u>	Soil (0 to 10 ftbgs)	Soil	Direct Contact	Construction Worker	Adult	Ingestion Dermal Inhalation of particulates	off-Site
Ambient Air			Direct Contact	Construction Worker	Adult	Inhalation of vapors	off-Site	Potential exposure to VOCs in ambient air during ground intrusive activities off-Site
Groundwater		Groundwater	Direct Contact	Construction Worker	Adult	Ingestion Dermal	off-Site	Potential exposure to contaminated groundwater during ground intrusive activities off-Site
		Ambient Air	Direct Contact	Construction Worker	Adult	Inhalation of vapors	off-Site	Potential exposure to contaminated groundwater during ground intrusive activities off-Site



APPENDIX A

FOCUSED PHASE II ENVIRONMENTAL ASSESSMENT; INDUSTRIAL PROPERTY,  
51 HAYES PLACE, BUFFALO, NEW YORK -  
PREPARED BY ENVIRONMENTAL AUDITS, INC.  
DATED MARCH 11, 2004



March 11, 2004

Erin L. Markey, Senior Corporate Attorney  
Oneida, Ltd. Legal Department  
161-183 Kenwood Avenue  
Oneida, New York 13421

Re: **Focused Phase II Environmental Assessment;  
Industrial Property, 51 Hayes Place, Buffalo, New York**

Dear Ms. Markey:

In accordance with an agreement between Environmental Audits, Inc. (EA) and Oneida, Ltd. (hereinafter the "Client"), signed March 1, 2004, EA completed a focused Phase II Environmental Site Assessment (ESA) of the above-referenced (subject) site. Both the ESA and this related letter report were completed on behalf of, and for the use of, Oneida, Ltd. for its reliance in the environmental assessment of the subject site. Use of this ESA report by any other party is strictly prohibited, except by authorization in writing from the Client.

This 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 primary conditions of concern for the site, as interpreted by EA, included:

- o 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 to determine whether residues left from past on-site spills caused elevated levels of surface and subsurface Lead and/or petroleum contamination; 2) Large perimeter berm to determine if historic disposal practices caused elevated levels of Lead and/or petroleum contamination in the excavated and stockpiled materials; 3) Exterior area surrounding the on-site warehouse to determine if past operating, storage and disposal practices resulted in any release(s) of regulated substances to the on-site soil profile; and 4) Eastern portion of the subject site to attempt to verify that no underground petroleum storage tanks exist in this area and to determine if past releases of regulated substances related to former on-site collision/automotive repair operations occurred;
- o Condition of subfloor soil profile within the factory in the compressor room, concrete chemical storage vaults and the glazemaking area and inside the warehouse at 151 Harrison Street; and
- o Condition of deposits that may have accumulated on any surfaces or within any equipment or manufacturing appurtenances.

EA's investigative activities and the associated results of this investigation are described in the following paragraphs, and only reflect the conditions of the subject site within the specific areas of concern that were investigated.

### **Exterior Subsurface Soil Sampling & Analysis**

Prior to performing any on-site subsurface investigative activities, EA obtained appropriate underground utilities clearances by contacting the Underground Facilities Protection Organization, which ensured that all public utilities were located and marked.

On February 26 and 27, and March 1, 2004, EA mobilized a direct-push boring rig to install a total of 42 exterior subsurface borings across the subject site at selected locations. These borings were all installed through the on-site soil profile to depths ranging from five to sixteen feet below grade (bg). Boring locations are provided in Figure 1. Hollow stem sampling probes were used to obtain discrete soil samples at approximately four foot depth intervals to the bottom of each sampling location. Initially, the soil/fill encountered at each sampling location was visually described from the discrete samples obtained. A representative portion of each soil sample was then placed into a plastic Zip-Loc<sup>®</sup> bag and was allowed to stand for a period of approximately 15 minutes. The headspace within each discrete soil sample bag was then screened for the presence of volatile organic compounds (VOCs) using a portable organic vapor monitor (OVM). Where applicable, the discrete sample exhibiting the highest VOCs headspace reading from each boring was then containerized, preserved by cooling in the field and submitted to the analytical laboratory under chain-of-custody procedures. In the event that additional samples exhibited other characteristic(s) of contamination, these were selected, containerized, preserved by cooling in the field and submitted to the analytical laboratory under chain-of-custody procedures. Descriptions of the soils encountered at each boring location are provided in EA's field notes (Attachment 1). After all discrete samples for each boring had been collected, the boring annulus was backfilled with the native fill or sand/bentonite fill.

The soil profile encountered across the subject site generally consisted of mixed fill grading to silt and sand with varying densities. In the western and northwestern portions of the site, bedrock was encountered at depths of between five to ten feet below grade. Groundwater was encountered in many borings at approximately eight feet below grade.

In a general manner for discussion, EA divided the exterior portion of the subject site into areas, including the: 1) Former Collision Shop Area; 2) Waste Storage and Maintenance Area; and 3) Harrison Warehouse and Silo Area.

#### **Former Collision Shop Area**

Soil samples collected from eleven of the 22 borings installed within this area exhibited either staining or headspace levels of VOCs that exceeded background levels. The maximum headspace VOCs reading of 250 ppm was detected in borings SB18 (8'-12' bg) and SB22 (12'-16' bg).

Five soil samples were selected and submitted for laboratory analysis from this area, including SB12 (4'-12' bg), SB14 (8'-12' bg), SB18 (8'-12' bg), SB21 (4'-12' bg), and SB22 (4'-16' bg). All five of these samples were analyzed using USEPA Methods 8260 (TCL VOCs) and 8270 (TCL SVOCs), and the eight RCRA toxic metals, all direct total analyses, except for sample SB12 (4'-12' bg), for which the only metal analyzed was Total Lead.

The laboratory analytical results obtained (Attachment 2) identified several target parameters in each of the five samples submitted from this area, with four of the five samples exhibiting both organic compounds and/or metals that exceeded the applicable NYSDEC Recommended Soil Cleanup Objectives (RSCOs) as presented in Appendix A, Tables 1, 2 and/or 4 of TAGM HWR-94-4046, dated January 24, 1994 (TAGM 4046). These results are summarized in Tables 1, 2 and 3 (Attachment 3).

The VOC Xylene (Table 1) was detected at concentrations exceeding the RSCO in the samples submitted for SB18 (8'-12' bg) and SB22 (4'-16' bg). EA suspects that this may be related to either the historic bulk storage of gasoline (since Ethylbenzene was also detected in SB22) or the historic use of Xylene as a paint solvent by the former collision shop. However, Xylene was also historically used by Buffalo China, Inc. as a solvent in its ware decorating operations. Various SVOCs parameters (Table 2) also exceeded their RSCOs in the samples submitted for SB14 (8'-12' bg), SB21 (4'-12' bg), and SB22 (4'-16' bg), with the highest concentrations being detected in SB14. These parameters all represent NYSDEC STARS-List Semivolatiles for Diesel Fuel/Fuel Oil contamination. Various metals parameters (Table 3) also exceeded their Eastern New York Background Levels (EBLs) in the samples submitted for SB14 (8'-12' bg), SB18 (8'-12' bg), SB21 (4'-12' bg), and SB22 (4'-16' bg). Most of these exceedances are likely to be related to the glacial history of the area which produced widespread elevated metals levels throughout Western New York. However, SB18, SB21 and SB22 all have very high levels of Barium, Chromium and/or Lead that would not be expected to be related to glaciation, and of which only Lead would be directly related to gasoline contamination. It should be noted that all of the borings for which substantial levels of contamination were identified are located in the western portion of the Former Collision Shop Area, and are all at depth.

#### Waste Storage and Maintenance Area

None of the soil samples collected from the seven borings installed in this area exhibited staining or levels of headspace VOCs exceeding background levels. For confirmation purposes, a total of three soil samples were submitted under chain of custody procedures for laboratory analysis from this area. Samples collected from SB24/25 (0'-4' bg composite), SB27/28 (0'-4' bg composite) and SB26/29 (0'-4' bg composite) were submitted for analysis for the eight RCRA toxic metals, all direct total

analyses. Although Cadmium was detected above the EBL for two of these samples (Table 3), in general, the laboratory analytical results (Attachment 2) did not indicate any metals exist at substantial levels of environmental concern for this area.

#### Harrison Warehouse and Silo Area

Soil samples collected from three of the twelve borings installed in this area exhibited either staining and/or levels of headspace VOCs exceeding background levels. A maximum VOCs headspace reading of 1,219 ppm was recorded for boring SB35 (8'-10' bg). A total of nine soil samples were selected and submitted for laboratory analysis from this area. Samples collected from SB30/31/32 (4'-10' bg composite), SB33 (0'-4' bg), SB35 (4'-10' bg) and SB37 (4'-5.5' bg) were submitted under chain of custody procedures for analysis using USEPA Methods 8260 (TCL VOCs) and the eight RCRA toxic metals, all direct total analyses. The samples collected from SB33 and SB36 (8'-9' bg) were submitted for analysis using USEPA Method 8270 (TCL - SVOCs), direct total analysis. The sample collected from SB39 (8'-8.5' bg) was submitted for the eight RCRA toxic metals, direct total analysis. The samples collected from SB40 (0'-4' bg), SB41 (0'-5' bg) and SB42 (0'-8' bg) were submitted for analysis for Total Lead and Total Cadmium, direct total analysis.

VOCs were detected in each of the four samples submitted, with two samples exhibiting parameters at concentrations exceeding the applicable RSCOs. The VOC Xylene (Table 1) was detected at a concentration of 7,600 µg/kg (RSCO = 1,200 µg/kg) in the sample collected from SB33 (0'-4' bg), while Trichloroethylene (TCE) was detected at a concentration of 250,000 µg/kg (RSCO = 700 µg/kg) in the sample collected from SB35 (4'-10' bg). As indicated above, Xylene was historically used by Buffalo China, Inc. as a solvent in its ware decorating operations, but EA suspects the historic source of TCE to have been the former mirror manufacturing facility that occupied the Harrison Street warehouse, based on the likely silver plating operation. It should also be noted that TCE was also detected at levels below the RSCO in the samples collected from SB30/31/32 (a composite) and SB37, which may indicate the migration of this solvent away from the suspect source within or just outside the warehouse. SVOCs (Table 2) were detected in both of the samples submitted for the SVOC analysis from this area, with several compounds exceeding their RSCOs in the SB33 and SB36 samples. However, these parameters all represent NYSDEC STARS-List Semivolatiles for Diesel Fuel/Fuel Oil contamination, and considering their shallow depth, are likely to represent surface spills due to leaks from trucks or heavy equipment used or stored in these areas. Various metals parameters (Table 3) also exceeded their EBLs in all of the samples submitted for this area, especially SB33 (0'-4' bg); however, most of these exceedances are likely to be related to the glacial history of the area, as described above.



### **Interior Subfloor Sampling and Analysis**

On March 3, 2004, EA mobilized a direct-push boring rig to the subject site to install a total of nine borings within the on-site buildings. These borings were all installed through concrete flooring and into the soil profile to depths ranging from seven to ten feet bg. Boring locations are provided in Figure 1. All soil/fill samples were collected, described, screened and handled in a manner similar to that described above for the exterior sampling activities. Descriptions of the soils encountered at each boring location are provided in EA's field notes (Attachment 1). After all discrete samples for each boring had been collected, the boring annulus was backfilled with the native fill or sand/bentonite fill, and the surface was completed with quick-set concrete patch.

In a general manner for discussion, EA divided the interior portion of the subject site into areas, including the: 1) Main Factory Area; and 2) Harrison Street Warehouse.

#### **Main Factory Area**

Soil samples collected from two of the seven borings installed in the Main Factory Area exhibited either staining or levels of headspace VOCs exceeding background levels. A total of five soil samples were submitted for laboratory analysis from this area. Samples collected from ISB2 (4'-8' bg) and ISB6 (0'-8' bg) were submitted for analysis using USEPA Methods 8260 (TCL VOCs) and 8270 (TCL SVOCs), and the eight RCRA toxic metals, all direct total analyses. Samples collected from ISB3 (0'-8' bg), ISB4 (0'-4' bg) and ISB5 (0'-8' bg) were submitted for analysis for Total Lead and Total Cadmium only.

The laboratory analytical results (Attachment 2) did not indicate any VOCs or SVOCs parameters in either sample submitted for these analyses (Methylene chloride was identified as a laboratory contaminant). Various metals parameters (Table 3) that exceeded their EBLs in all of the interior factory samples submitted, most of which did not appear to present a significant environmental concern. However, the Lead level detected in ISB3 (10,000 ppm) was very high, and is likely related to Buffalo China, Inc.'s manufacture of Leaded glaze in the Glazemaking Room.

#### **Harrison Street Warehouse**

Soil samples collected from all three of borings installed in the Harrison Street Warehouse exhibited levels of VOCs exceeding background levels, with a maximum headspace VOCs reading of 428 ppm being detected in boring ISB9 (0'-4' bg). A total of two soil samples were submitted under chain-of-custody procedures for laboratory analysis from this area. Samples collected from ISB7/ISB8 (4'-8' bg & 7'-10' bg composite) and ISB9 (0'-7' bg) were submitted for analysis using USEPA Methods 8260 (TCL VOCs) and 8270 (TCL SVOCs) and the eight RCRA toxic metals, all direct total analyses.

VOCs (Table 1) were detected in both of the samples submitted, with one of the samples, ISB9 (0'-7' bg), exhibiting parameters at concentrations exceeding the applicable RSCOs. Xylene and Ethylbenzene were detected at concentrations of 9,600 µg/kg (RSCO = 5,500 µg/kg) and 11,000 µg/kg (RSCO = 1,200 µg/kg), respectively. These two solvents together provide an indication that this contamination may be related to a limited subfloor gasoline release; however, the source may also have been related to Buffalo China, Inc.'s historic use of Xylene. It should be noted that TCE was detected below the RSCO in the composite sample from ISB7/ISB8. Only one SVOC, bis(2-ethylhexyl) phthalate, was detected in both samples submitted (Table 2); however, the level was below the RSCO. Mercury was detected above the EBL in ISB9, but this may not be related to historic manufacturing operations.

### **Interior Media Sampling and Analysis**

EA collected a total of six bulk media samples from within the Main Factory Area, five of which consisted of composite dust samples and the last of which consisted of trench sludge. The five composite dust samples were collected by sweeping dust from horizontal surfaces at several locations within a selected area. The areas where these dust samples were collected included: 1) Glazemaking; 2) Glaze Reclaim; 3) TK-6 Spray Glaze Area; 4) Color Cell Spray Glaze Area; and 5) Old Slip House. The dust from all specific locations sampled within each area selected was composited and containerized. All five composite samples were then submitted under chain-of-custody procedures for laboratory analysis for Total Lead and Total Cadmium.

The trench sludge sample was collected from the Glaze Reclaim Area floor trench. A sampling scoop was used to collect sludge from several locations within this trench. The discrete sludge samples were combined into one composite sample, placed in an appropriate sample container, and submitted under chain-of-custody procedures for laboratory analysis for Total Lead and Total Cadmium.

High levels of Lead (Table 4) were detected in all six media samples, and may represent characteristic hazardous waste levels. Cadmium was also detected in the Old Slip House dust sample at an elevated level, and also may represent a characteristic hazardous waste level.

### **Assessment Summary**

EA completed a variety of investigative and analytical and screening procedures to provide a characterization of both subsurface and subfloor soil profile conditions, as well as various interior media at the subject site. Based on the results of these activities, EA has determined the following for the specific areas of concern which were investigated as part of this ESA:

- o Field observations and analytical data identified the presence of significant subsurface VOCs and SVOCs contamination and metals contamination in the vicinity of the former collision shop. The majority of the data collected for this

area indicate that this contamination may be related to the historic bulk storage of petroleum. Although this contamination appears to be bulk petroleum storage related, EA did not encounter any physical evidence of USTs during the installation of any of the 22 borings in this area of the subject site. Further, EA is also aware that two large bulk storage USTs were excavated and removed, along with a substantial volume of petroleum contaminated soil, during the construction of the Client's adjacent warehouse in the late 1990s. It should be noted that that remedial project was provided with a "no further action" decision by the NYSDEC based upon agency observation and review of verification analytical results. Therefore, these two former USTs are likely not related to the petroleum contamination detected during this investigation. In any regard, the levels of VOCs and SVOCs contamination encountered indicate that some remedial effort may be warranted to reduce the liability associated with this portion of the subject site.

- o Field observations and analytical data identified the presence of significant subsurface VOCs contamination inside, and in the vicinity of, the Harrison Street Warehouse. Xylene was historically used by Buffalo China, Inc. as a solvent in its ware decorating operations, and it was detected in shallow subsurface samples. EA suspects the historic source of TCE to have been the former mirror manufacturing facility that occupied the Harrison Street warehouse. It should be noted that TCE was also detected at levels below the RSCO in the samples collected from SB30/31/32 (a composite) south of the warehouse and SB37 toward the silos, which may indicate the migration of this solvent away from the suspect source within or just outside the warehouse. As bedrock and groundwater were encountered in this portion of the subject site, the potential that these subsurface features are TCE-contaminated exists. Since the level of TCE detected in SB35 is significantly higher than the RSCO, remedial effort may be warranted to reduce the liability associated with this portion of the subject site.
- o The subfloor soil sample from the Glazemaking Room exhibited a very high level of Lead which may represent the characteristic hazardous waste level. Due to both the nature of the existing manufacturing operations in this area of the facility and the fact that this contamination is located within the footer of the building under a concrete floor, it is possible that this subfloor contamination represents a potential liability that will require remediation if the subfloor soil is disturbed. In that case, any soil/fill or concrete pad removed will most likely require management as a characteristic hazardous waste.
- o High levels of Lead were detected in all interior dust samples and in the Glaze Reclaim Area floor trench sludge which may represent a characteristic hazardous waste level. Upon verification by TCLP analysis for Lead and Cadmium, it is likely that these dusts may need to be collected, managed and disposed of as hazardous wastes in order to ensure that any employees working in these areas are not exposed to Lead-contaminated residues that



exhibit the characteristics of hazardous waste due to Lead toxicity. Further, the liability related to the Lead-contaminated sludge in the Glaze Reclaim floor trench can be reduced through the removal of this material for proper management, whether on-site or off-site.

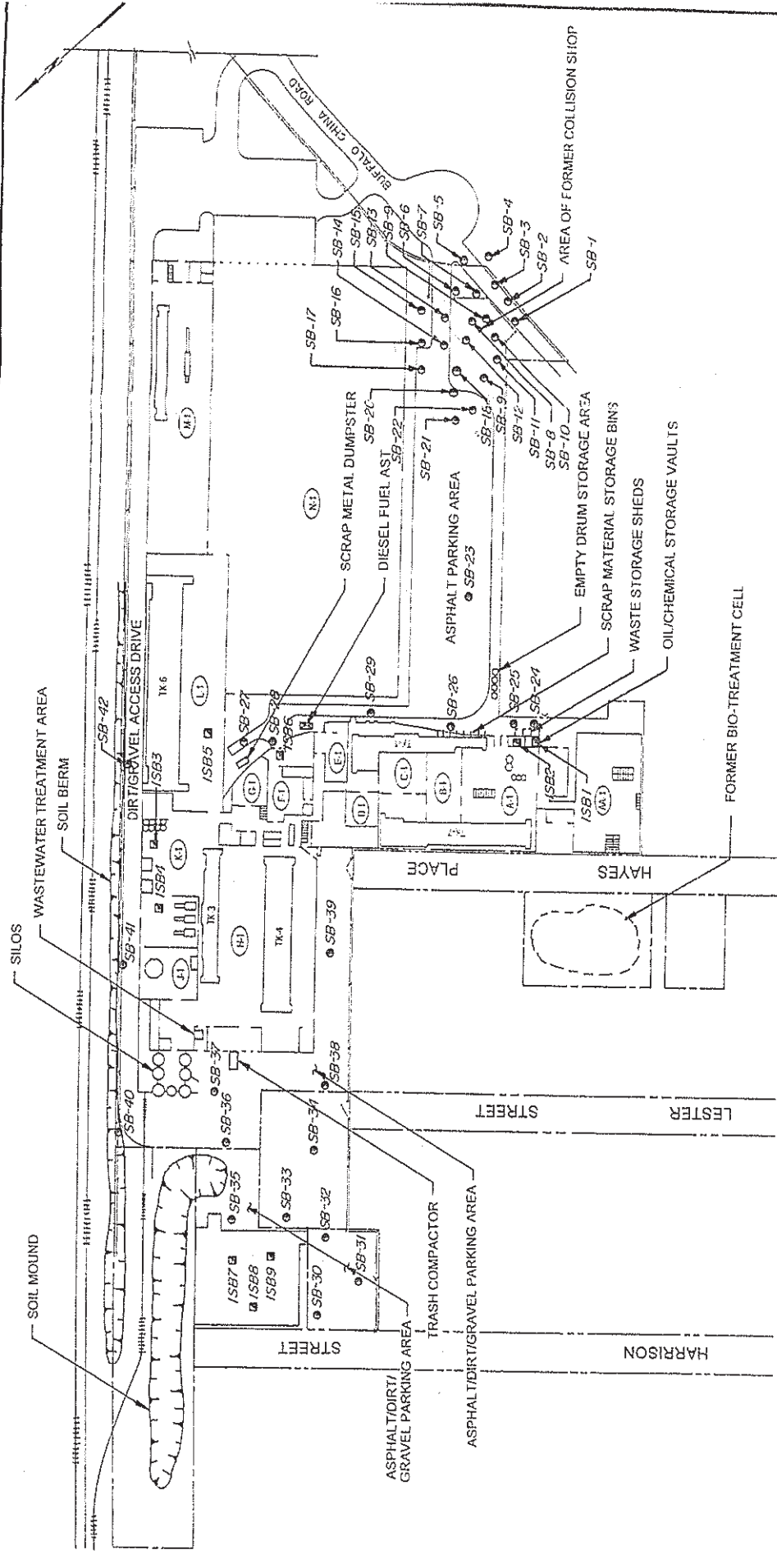
The information presented above should adequately summarize EA's investigative efforts and results regarding the various environmental concerns at the subject site, as identified above. If you have any questions regarding the contents of this letter report, please contact me directly.

Very truly yours,  
ENVIRONMENTAL AUDITS, INC.

A handwritten signature in black ink, appearing to read "C. Mark Hanna". The signature is written in a cursive style with a large initial "C".

C. Mark Hanna, CHMM  
President

Attachments  
EA#281OneidaHayesP2



**ENVIRONMENTAL AUDITS, INC.**  
*Phase III Audits - Site Investigations - Facility Inspections*

**SAMPLING LOCATIONS**  
 INDUSTRIAL PROPERTY  
 51 HAYES PLACE, BUFFALO, NEW YORK  
 ONEIDA, NEW YORK

DRAWN BY: J.L.W.      SCALE: NOT TO SCALE      PROJECT: 0333  
 CHECKED BY: CMH      DATE: 3/04      DRAWING NO: 1

- FIRST FLOOR BUILDING DESIGNATIONS**
- AA-1 BISQUE WAREHOUSE/STORAGE, BOWL MAKING
  - A-1 OLD SLIPHOUSE, DOWNSTAIRS QUANT
  - B-1 TK1 AND TK7 CAR BUILDING
  - C-1 BISQUE PROCESSING
  - D-1 ORIGINAL DECORATING DEPT
  - E-1 CAFETERIA
  - F-1 MAINTENANCE, AIR COMPRESSORS
  - G-1 TOOL CRIB, NURSES STATION, MEETING ROOM
  - H-1 RAM DEPT., DIE SHOP, TK4, COLOR GLAZE, CLARIFIER ROOM
  - J-1 NEW CLIP, SPRAY DRYER
  - K-1 GLAZE MAKING & STORAGE
  - L-1 TK6
  - M-1 NEW DECORATING DEPT. (DECAL APPLICATION, DECORATING KILNS)
  - N-1 WAREHOUSE, SHIPPING
- SECOND FLOOR BUILDING DESIGNATIONS**
- AA-2 HAYES WAREHOUSE / STORAGE
  - A-2 CLAYSHOP
  - B-2 MOLD SHOP STORAGE
  - C-2 MOLD / MODEL SHOP, MOLD STORAGE
  - E-2 OFFICES, STORAGE
  - F-2 COLOR LAB, COLOR STORAGE, PRESS ROOM
  - G-2 DECORATING SERVICES AREA, TOOL CRIB LOFT
  - M-2 OFFICES
- BASEMENT BUILDING DESIGNATIONS**
- AA-B REFRACTORY STORAGE
- THIRD FLOOR BUILDING DESIGNATIONS**
- E-3 R & D LAB

**Attachment 1**

**Field Notes**

Date 2/26/04  
 Client BCI  
 Subject Phase II  
 Weather Cool


No. 0333  
 Temp \_\_\_\_\_

ENVIRONMENTAL AUDITS, INC  
 3836 N. Buffalo Rd.  
 Orchard Park, NY 14127  
 (716) 667-6804

**FIELD INVESTIGATION REPORT**

Travelled to the site, met with national fuel regarding gas line layout. Met with Carl Huckins regarding electric line near camp china bins.

	OVM (PPM)
<u>SB1</u>	
0-4' Asphalt and stone fill, to black sand, wet	<u>5.4</u>
4-8' Layer of white powder substance 1", then soft br + gray silt to stone fill, some water.	<u>7.3</u>
8-12' Stone, wet, then soft brn sand to dense brn clay	<u>7.7</u>
<u>SB2</u>	
0-4' Fill, pieces of red brick, brown + gray sand.	<u>5.8</u>
4-8' Brn sand, moist to wet, rocks + silt, gray	<u>8.1</u>
8-12' Wet silt + sand to dense brn + gray silt + clay.	<u>7.7</u>
<u>SB3</u>	
0-4' Dense brn silt to sand + stone fill.	<u>7.4</u>
4-8' Similar soil to soft silt + sand, wet.	<u>4.6</u>
8-12' Similar soil to dense brn clay.	<u>5.4</u>
<u>SB4</u>	
0-4' Brn silt fill w/some sand.	<u>4.2</u>
4-8' Similar to brn stone gravel + sand, wet	<u>7.3</u>
8-12' Wet, well graded peastone to dense silt + clay.	<u>5.8</u>
<u>SB5</u>	
0-4' Gray fill w/ stones, dense	<u>6.2</u>
4-8' Similar soil to brn silt, then moist black sand.	<u>7.3</u>
8-12' Similar to dense brn silt + clay.	<u>3.8</u>

Signature 

Title \_\_\_\_\_

Date 2/26/04 No. 0323 ENVIRONMENTAL AUDITS, INC  
 Client BCF 3836 N. Buffalo Rd.  
 Subject Phase II Orchard Park, NY 14127  
 Weather Cloud Temp \_\_\_\_\_ (716) 667-6804

### FIELD INVESTIGATION REPORT

<u>SB6</u>	
Encountered refusal at a number of locations, before success.	
0-4' Brown silt + sand to clay.	25.5
4-8' Mixed brown and black sand, moist	4.6
8-12' Wet, loose sand, grades to dense clay. Possible old stain and odor.	0.7
<u>SB7</u>	
0-4' Mixed brown silt + sand fill.	0.0
4-8' Mixed sand fill w/ layers of crushed china.	2.7
8-12' Dense brown silt and clay, little sand.	3.4
<u>SB8</u>	
0-4' Mixed fill.	3.1
4-8' Fill to silt, layer of wood, black stained.	8.5
8-12' Black stained silt + sand to dense silt + clay.	9.3
<u>SB9</u>	
0-4' Brown + gray fill.	5.1
4-8' Fill to soft brown silt + sand	3.1
8-12' Soft silt grades to dense clay (wet).	1.9
<u>SB10</u>	
0-4' Fill to dense red brown silt (layer of 4" concrete).	3.1
4-8' Silt, red brown, fill w/ brick, soft silt + sand, possible stain.	5.0
8-12' Black stained silt + sand, dense brown silt + clay.	13.2

Signature SPAD Title \_\_\_\_\_

Date 2/26/04  
Client RCI  
Subject Phase II  
Weather Cloud

No. 0333  
Temp \_\_\_\_\_

ENVIRONMENTAL AUDITS, INC  
3836 N. Buffalo Rd.  
Orchard Park, NY 14127  
(716) 667-6804

### FIELD INVESTIGATION REPORT

<u>SB11</u>		
0-4'	Brown + gray fill, w/ silt.	<u>2.7</u>
4-8'	Brown silt fill, soft, w/ red brick.	<u>2.4</u>
8-12'	Silt + brick pieces, grades to soft, wet sand, some possible staining.	<u>3.8</u>
<u>SB12</u>		
0-4'	Brown silt + rock fill.	<u>5.0</u>
4-8'	Brown + black stained sand + silt, some light gray material with a diesel odor.	<u>74.5</u>
8-12'	Brown + black silt + sand, obvious petro stain + odor, appears to be weathered.	<u>11.2</u>
<u>SB13</u>		
Refused at 3 locations - abandoned location.		
<u>SB14</u>		
0-4'	Brown fill to small silt.	<u>3.4</u>
4-8'	Brown + gray mixed silt + rock fill.	<u>2.1</u>
8-12'	Black sand with creosote odor + obvious staining. Placed 8-12' in jar for analysis.	<u>NA</u>

Signature SAD

Title \_\_\_\_\_

Date 2/27/04 No. 0333  
 Client BCI  
 Subject Phase II  
 Weather Cool Temp \_\_\_\_\_

ENVIRONMENTAL AUDITS, INC  
 3836 N. Buffalo Rd.  
 Orchard Park, NY 14127  
 (716) 667-6804

### FIELD INVESTIGATION REPORT

<u>SB15</u>		
0-4'	Brown fill, silt + sand, to wet silt.	<u>4.6</u>
4-8'	Silt to red brick, then rocks, soft wet black sand + silt.	<u>6.6</u>
8-12'	Brown + gray, wet sand + dense silt + clay	<u>4.2</u>
<u>SB16</u>		
0-4'	Mixed concrete, brick stone, sand fill to cmt sand + silt.	<u>8.12</u>
4-8'	Soft silt + sand fill w/ brick fragments	<u>7.5</u>
8-12'	No recovery	
12-16'	Angular stone 4" then dense silt + clay, wet	<u>3.9</u>
<u>SB17</u>		
0-4'	Brown sand fill.	<u>9.0</u>
4-8'	Well graded cmt sand fill	<u>6.4</u>
8-12'	Rock + broken China fill, wet	<u>NA</u>
<u>SB18</u>		
0-4'	Fill, layer of concrete to dense silt, brown, w/ rocks.	<u>37.0</u>
4-8'	Loose sand fill, w brick stained sand, odor.	<u>6.4</u>
8-12'	Soft, wet silt sand, heavy oil odor.	<u>2.50</u>
<u>SB19</u>		
0-4'	Brown silt, fill	<u>7.1</u>
4-8'	Fill, w brick, dense silt, black sand.	<u>9.7</u>
8-12'	Black sand + rock, wet	<u>7.9</u>
<u>SB20</u>		
0-4'	Brown fill, silt w/ rocks.	<u>9.0</u>
4-8'	Fill + black sand layer, Lt Brown sand 2"	<u>70.5</u>
8-12'	Soft, wet, black stained silt + sand.	<u>18.0</u>

Signature [Signature]

Title \_\_\_\_\_

Date 2/27/04 + No. 0337 ENVIRONMENTAL AUDITS, INC  
 Client RT Ph'z 3836 N. Buffalo Rd.  
 Subject Phase II Orchard Park, NY 14127  
 Weather Nice, Cool Temp \_\_\_\_\_ (716) 667-6804

FIELD INVESTIGATION REPORT

<u>SB21</u>		
0-4'	Fill with China mixed to black sand	<u>17.8</u>
4-8'	Mixed sand + gravel + silt fill, black, odor	} Comp for Analysis <u>125.8</u> <u>199</u>
8-12'	Stone + fill, pieces of wood, paper, odor	
<u>SB22</u>		
0-4'	Mixed fill, Lt sand.	<u>3.8</u>
4-8'	Black sand + stone fill, possible odor	<u>27</u>
8-12'	Stone + fill + debris, stained, heavy odor	<u>26</u>
12-16'	Mixed stone, wood, fill, strong odor	<u>250</u>
Composited 4-16' for analysis.		
<u>Area adjacent to TK-1 + waste piles</u>		
<u>SB23</u>		
0-4'	Fill, sand, stone china	<u>6.0</u>
4-8'	Similar soil	<u>6.4</u>
8-12'	Little recovery - go to 16'	} 4.6
12-16'	Similar to dense brown silt.	
<u>SB24</u>		
0-4'	Soft, wet clay, to black sand fill	<u>4.2</u>
4-8'	Soft, wet silt + f sand	<u>7.9</u>
8-12'	Soft brown + gray silt + sand, some stiff areas, moist to wet.	<u>4.2</u>
<u>SB25</u>		
0-4'	Brown sand grades to black, dry	<u>9.0</u>
4-8'	Soft wet sand + silt to dense silt + sand again.	<u>4.2</u>
8-12'	Soft, wet f sand + silt to dense silt + clay	<u>5.7</u>
(Comp 24+25 0-4')		

Signature SDS

Title \_\_\_\_\_



Date 2/27/04 + 3/1/04 No. 0227 ENVIRONMENTAL AUDITS, INC  
 Client BCE Ph 2 3836 N. Buffalo Rd.  
 Subject Phase IV Orchard Park, NY 14127  
 Weather Wile Temp \_\_\_\_\_ (716) 667-6804

### FIELD INVESTIGATION REPORT

<u>SB26</u>		
0-4'	Brn + gray sand + stone fill, some silt.	<u>2.3</u>
4-8'	Soft plastic brn silt, h. f sand black & brown, moist to wet	<u>2.5</u>
8-12'	Soft brn silt r. sand to dense brn silt + clay	<u>4.6</u>
<u>SB27</u>		
0-4'	Fill to 4 sand layers, then dense brn silt.	<u>3.5</u>
4-8'	Brn silt + f sand, dense, moist	<u>2.3</u>
8-12'	Brn silt + f sand, moist, some soft m sand	<u>3.1</u>
<u>SB28</u>		
0-4'	Fill to dense brn silt.	<u>3.5</u>
4-8'	Dense brn silt.	<u>2.3</u>
8-12'	Soft wet clay to silt (Comp 27 + 28 0'-4')	<u>3.1</u>
<u>SB29</u>		
0-4'	Fill w/ crushed orange-red sand-like substance	<u>2.3</u>
4-8'	Silt + f sand, soft, moist, to dense silt.	<u>2.3</u>
8-12'	Dense brn silt.	<u>2.7</u>
<u>3/1/04</u>		
<u>SB30</u>		
0-4'	Fill, 4" layer of lt orange sand, dense brn silt.	<u>1.4</u>
4-8'	Similar to wet silt w/ conf sand, soft Revised at 7.5'	<u>2.6</u>

Signature SAD Title \_\_\_\_\_

Date 3/1/64 No. 0333 ENVIRONMENTAL AUDITS, INC  
 Client BCI 3836 N. Buffalo Rd.  
 Subject Phase II Orchard Park, NY 14127  
 Weather NW Temp \_\_\_\_\_ (716) 667-6804

### FIELD INVESTIGATION REPORT

<u>SB31</u>		
0-4'	Fill to brown + gray silt, brittle	<u>2.2</u>
4-8'	Similar soil to wet silt w/cont sand, soft	<u>3.0</u>
8-8'4"	Wet sand + silt, soft	<u>3.8</u>
	Refusal at 8'4"	
<u>SB32</u>		
0-4'	Fill to brown silt, w some wood, black silt also, brittle	<u>9.8</u>
4-8'	Dense brown + gray silt, softer near bottom	<u>1.0</u>
8-10'	Refusal at 10'. Similar soil to brown sand w/rocks, wet, soft to brittle.	<u>18</u>
<u>SB33</u>		
0-4'	Fill, brown + black silt, petro odor	<u>2.36</u>
4-8'	Dense silt; petro odor, water	<u>71</u>
8-10.5'	Brown silt + f sand, stiff, moist to wet	<u>6.2</u>
	Refusal 10.5'	
<u>SB34</u>		
0-4'	Rock fill, layers of clings, then brown + black silt.	<u>2.2</u>
4-8'	Dense brown silt, water in hole from fill above.	<u>3.4</u>
8-9.3'	Wet silt + f sand, little stiff	<u>2.6</u>
	Refusal at 9.3"	
<u>SB35</u>		
0-4'	Fill to brown silt, soft	<u>2.17</u>
4-8'	Hard silt to soft silt + sand, acetone type odor	<u>1.137</u>
8-10'	Brown silt, soft to more dense f sand + silt, odor	<u>1.219</u>
	(Comp 4'-10')	

Signature Sho Title \_\_\_\_\_

Date 3/1/84 No. 6723 ENVIRONMENTAL AUDITS, INC  
 Client BCE 3836 N. Buffalo Rd.  
 Subject Phase II Orchard Park, NY 14127  
 Weather  Nice  Temp \_\_\_\_\_ (716) 667-6804

### FIELD INVESTIGATION REPORT

<u>SB 36</u>		
0-4'	Fill to red brick 4" , brn dense silt.	<u>4.6</u>
4-8'	Dense brn silt to wet sand + silt	<u>5.4</u>
8-9'	Silt, w/some sand, rocks at bottom, possible creosote stain (Refract at 9.0)	<u>4.6</u>
<u>SB 37</u>		
0-4'	Fill to dense silt	<u>11.4</u>
4-5.5'	Stiff f sand + silt, wet Refract at 5.5	<u>15.8</u>
<u>SB 38</u>		
0-4'	Fill to m brn sand, moist	<u>1.4</u>
4-5'	Brn somewhat loose sand, moist Refract at 5.0	<u>1.4</u>
<u>SB 39</u>		
0-4'	Black + Brown sand + mixed fill	<u>2.2</u>
4-8'	Brn silt + f sand, stiff, wet.	<u>1.4</u>
8-8.5'	Silt dense layer of China, wet	<u>1.0</u>
<u>SB 40</u>		
0-4'	Fill + brn dense silt	<u>1.4</u>
4-7'	Dense brn silt + f sand, wet Refract at 7'	<u>1.0</u>
<u>SB 41</u>		
0-4'	Mixed dirt fill, dark brown.	<u>0.6</u>
4-5'	Similar soil to dense gray silt Refract at 5'	

Signature SAO Title \_\_\_\_\_



Date 3/3/64 No. 0333  
 Client BCI  
 Subject Phenol  
 Weather cool Temp \_\_\_\_\_

ENVIRONMENTAL AUDITS, INC  
 3836 N. Buffalo Rd.  
 Orchard Park, NY 14127  
 (716) 667-6804

**FIELD INVESTIGATION REPORT**

Traveled to site, met with Dennis of C+W. Identified drilling locations.		
		OVM (PPM)
<u>ISR 1</u>		
0-4'	Dry packed medium brown silty sand, grades to reddish brown clay, no odor	5.0
4-8'	Slightly moist brown to dark brown clay, no odor.	8.6
<u>ISR 2</u>		
0-4'	Light brown silty sand to 1', then red brown clay, no odor	9.4
4-8'	Red brown clay to dark brown clay w/ apparent black staining and solvent or petroleum odor.	38.8
<u>ISR 3</u>		
0-4'	1' of stone fill, then wet coarse black silt with limited apparent asphalt material, no odor.	31.4
4-8'	Light to medium brown dense clay, no odor	22.3
<u>ISR 4</u>		
0-4'	Mixed sand, stone + brick fill, no odor	7.0
<u>ISR 5</u>		
0-4'	6.5' of stone sand/asphalt/china fill followed by black/brown silt to 3' and then moist packed brown-gray sand, no odor	13.1
4-8'	Dense brown-gray clay, no odor.	8.2
<u>ISR 6</u>		
0-4'	6.5' of sand/china/brick fill, then dense brown-gray clay, no odor.	7.0
4-8'	Dense red-brown + gray clay, no odor.	6.8

Signature [Signature]

Title Phenol

M 192

Date 3/3/04 No. 0333 ENVIRONMENTAL AUDITS, INC  
 Client BCT 3836 N. Buffalo Rd.  
 Subject Phase II Orchard Park, NY 14127  
 Weather Cool Temp \_\_\_\_\_ (716) 667-6804

### FIELD INVESTIGATION REPORT

<u>Harrison Street Interiors</u>	
<u>ISB7</u>	
0-4' Concrete to brown, + red brown silt, soft	<u>34.4</u>
4-8' Brown silt + f sand w/ pebbles, moist. Expanding clay	<u>54.0</u>
<u>ISB8</u>	
0-4' Concrete to brown silt w/ apparent red staining to light brown sand, no odor	<u>12.2</u>
4-7' Base, orange-brown clay, no odor	<u>9.0</u>
7-10' Sand, no odor	<u>61.0</u>
<u>ISB9</u>	
0-4' Concrete to packed brown silt w/ red staining to approx 1.5', then gray-brown clay slightly moist at 3.5-4' black staining w/ apparent petroleum odor.	<u>428.0</u>
4-7' Approx 1' of gray-brown clay w/ limited black staining and light apparent petroleum odor, grades to grey orange brown clay w/ slight apparent solvent-like odor.	<u>222.0</u>
Collected dust sample composites from the following locations:	
A) Glaze making area	
B) Glaze storage reclaim area	
C) TK-6 Spray Glaze	
D) Color cell spray glazing	
E) Old Slip House	
Collected a sludge sample from the Glaze recovery trenches.	

Signature Steve Overhoff Title PM

**Attachment 2**

**Laboratory Analytical Reports**

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204001 Mat:Sc11 0333/BCI PHASE 2 SB12(4'-12') 02/26/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Percent Solids	70%		03/03/04				NR7216
Total Lead	170ug/kg dw		03/05/04				MS6126

TCL Volatiles by EPA Method 8260

Chloromethane	<360ug/kg dw		03/04/04		1		VM4803
Bromomethane	<360ug/kg dw		03/04/04		1		VM4803
Vinyl Chloride	<360ug/kg dw		03/04/04		1		VM4803
Chloroethane	<360ug/kg dw		03/04/04		1		VM4803
Methylene Chloride	<360ug/kg dw		03/04/04		1		VM4803
Acetone	<1200ug/kg dw		03/04/04		1		VM4803
Carbon Disulfide	<360ug/kg dw		03/04/04		1		VM4803
1,1-Dichloroethane	<360ug/kg dw		03/04/04		1		VM4803
1,1-Dichloroethane	<360ug/kg dw		03/04/04		1		VM4803
trans-1,2-Dichloroethane	<360ug/kg dw		03/04/04		1		VM4803
cis-1,2-Dichloroethane	<360ug/kg dw		03/04/04		1		VM4803
Chloroform	<360ug/kg dw		03/04/04		1		VM4803
1,2-Dichloroethane	<360ug/kg dw		03/04/04		1		VM4803
2-Butanone	<1200ug/kg dw		03/04/04		1		VM4803
1,1,1-Trichloroethane	<360ug/kg dw		03/04/04		1		VM4803
Carbon Tetrachloride	<360ug/kg dw		03/04/04		1		VM4803
Bromodichloromethane	<360ug/kg dw		03/04/04		1		VM4803
1,2-Dichloropropane	<360ug/kg dw		03/04/04		1		VM4803
cis-1,3-Dichloropropene	<360ug/kg dw		03/04/04		1		VM4803
Trichloroethene	<360ug/kg dw		03/04/04		1		VM4803
Dibromochloromethane	<360ug/kg dw		03/04/04		1		VM4803
1,1,2-Trichloroethane	<360ug/kg dw		03/04/04		1		VM4803
Benzene	<360ug/kg dw		03/04/04		1		VM4803
trans-1,3-Dichloropropane	<360ug/kg dw		03/04/04		1		VM4803
Bromoform	<360ug/kg dw		03/04/04		1		VM4803
4-Methyl-2-pentanone	<1200ug/kg dw		03/04/04		1		VM4803
2-Hexanone	<1200ug/kg dw		03/04/04		1		VM4803
Tetrachloroethane	<360ug/kg dw		03/04/04		1		VM4803
1,1,2,2-Tetrachloroethane	<360ug/kg dw		03/04/04		1		VM4803
Toluene	<360ug/kg dw		03/04/04		1		VM4803
Chlorobenzene	<360ug/kg dw		03/04/04		1		VM4803
Ethylbenzene	<360ug/kg dw		03/04/04		1		VM4803
Styrene	<360ug/kg dw		03/04/04		1		VM4803
m,p-Xylene	<360ug/kg dw		03/04/04		1		VM4803
o-Xylene	<360ug/kg dw		03/04/04		1		VM4803

TCL Semivolatiles by EPA Method 8270

Phenol	<950ug/kg dw		03/09/04				SA4119
bis(2-Chloroethyl)ether	<950ug/kg dw		03/09/04				SA4119
2-Chlorophenol	<950ug/kg dw		03/09/04				SA4119

dw = Dry weight



DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_ Lab I.D.: 10170  
Sampled by: Client

ID:06204001 Mat:Soil 0333/BCI PHASE 2 SB12(4'-12') 02/26/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
1,3-Dichlorobenzene	<950ug/kg dw		03/09/04				SA4119
1,4-Dichlorobenzene	<950ug/kg dw		03/09/04				SA4119
1,2-Dichlorobenzene	<950ug/kg dw		03/09/04				SA4119
2-Methylphenol	<950ug/kg dw		03/09/04				SA4119
2,2'-Oxybis(1-Chloropropane)	<950ug/kg dw		03/09/04				SA4119
4-Methylphenol	<950ug/kg dw		03/09/04				SA4119
n-Nitrosodipropylamine	<950ug/kg dw		03/09/04				SA4119
Hexachloroethane	<950ug/kg dw		03/09/04				SA4119
Nitrobenzene	<950ug/kg dw		03/09/04				SA4119
Isophorone	<950ug/kg dw		03/09/04				SA4119
2-Nitrophenol	<950ug/kg dw		03/09/04				SA4119
2,4-Dimethylphenol	<950ug/kg dw		03/09/04				SA4119
bis(2-Chloroethoxy)methane	<950ug/kg dw		03/09/04				SA4119
2,6-Dichlorophenol	<950ug/kg dw		03/09/04				SA4119
1,2,4-Trichlorobenzene	<950ug/kg dw		03/09/04				SA4119
Naphthalene	<950ug/kg dw		03/09/04				SA4119
4-Chloroaniline	<950ug/kg dw		03/09/04				SA4119
Hexachlorobutadiene	<950ug/kg dw		03/09/04				SA4119
4-Chloro-3-methylphenol	<950ug/kg dw		03/09/04				SA4119
2-Methylnaphthalene	<950ug/kg dw		03/09/04				SA4119
Hexachlorocyclopentadiene	<950ug/kg dw		03/09/04				SA4119
2,4,6-Trichlorophenol	<950ug/kg dw		03/09/04				SA4119
2,4,3-Trichlorophenol	<950ug/kg dw		03/09/04				SA4119
2-Chloronaphthalene	<950ug/kg dw		03/09/04				SA4119
2-Nitroaniline	<9500ug/kg dw		03/09/04				SA4119
Dimethylphthalate	<950ug/kg dw		03/09/04				SA4119
Acenaphthylene	<950ug/kg dw		03/09/04				SA4119
2,6-Dinitrotoluene	<950ug/kg dw		03/09/04				SA4119
3-Nitroaniline	<9500ug/kg dw		03/09/04				SA4119
Acenaphthene	<950ug/kg dw		03/09/04				SA4119
2,4-Dinitrophenol	<9500ug/kg dw		03/09/04				SA4119
4-Nitrophenol	<9500ug/kg dw		03/09/04				SA4119
Dibenzofuran	<950ug/kg dw		03/09/04				SA4119
2,4-Dinitrotoluene	<950ug/kg dw		03/09/04				SA4119
Diethylphthalate	<950ug/kg dw		03/09/04				SA4119
4-Chlorophenylphenylether	<950ug/kg dw		03/09/04				SA4119
Fluorene	<950ug/kg dw		03/09/04				SA4119
1-Nitroaniline	<9500ug/kg dw		03/09/04				SA4119
2-Methyl-4,6-dinitrophenol	<9500ug/kg dw		03/09/04				SA4119
n-Nitrosodiphenylamine	<950ug/kg dw		03/09/04				SA4119
6-Bromophenylphenylether	<950ug/kg dw		03/09/04				SA4119
Hexachlorobenzene	<950ug/kg dw		03/09/04				SA4119
Pentachlorophenol	<1900ug/kg dw		03/09/04				SA4119
Phenanthrene	970ug/kg dw		03/09/04				SA4119

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

-----  
ID:06204001 Mat:Soil 0533/BCI PHASE 2 SB12(4'-12') 02/26/04 C  
-----

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Anthracene	<950ug/kg dw		03/09/04				SA4119
Carbazole	<950ug/kg dw		03/09/04				SA4119
Di-n-butylphthalate	<950ug/kg dw		03/09/04				SA4119
Fluoranthene	870ug/kg dw		03/09/04				SA4119
Pyrene	540ug/kg dw		03/09/04				SA4119
Butylbenzylphthalate	<950ug/kg dw		03/09/04				SA4119
3,3'-Dichlorobenzidine	<950ug/kg dw		03/09/04				SA4119
Benzo(a)anthracene	<950ug/kg dw		03/09/04				SA4119
Chrysene	<950ug/kg dw		03/09/04				SA4119
bis(2-Ethylhexyl)phthalate	3500ug/kg dw		03/09/04				SA4119
Di-n-octylphthalate	<950ug/kg dw		03/09/04				SA4119
Benzo(b)fluoranthene	590ug/kg dw		03/09/04				SA4119
Benzo(k)fluoranthene	<950ug/kg dw		03/09/04				SA4119
Benzo(a)pyrene	<950ug/kg dw		03/09/04				SA4119
Indeno(1,2,3-cd)pyrene	<950ug/kg dw		03/09/04				SA4119
Dibenzo(a,h)anthracene	<950ug/kg dw		03/09/04				SA4119
Benzo(ghi)perylene	<950ug/kg dw		03/09/04				SA4119

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ID:06204002 Mat:Soil 0533/BCI PHASE 2 SB14(8'-12') 02/26/04 C  
-----

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Percent Solids	72%		03/03/04				NE7216
Total Arsenic by Low Level	36mg/kg dw		03/05/04				NE6117
Total Barium	47mg/kg dw		03/03/04				NE6116
Total Cadmium	3.8mg/kg dw		03/05/04				NE6116
Total Chromium	20mg/kg dw		03/05/04				NE6116
Total Lead	99mg/kg dw		03/05/04				NE6116
Total Mercury	1.4mg/kg dw		03/07/04				NE6118
Total Selenium by Low Level	<0.70mg/kg dw		03/05/04				NE6117
Total Silver	<4.9mg/kg dw		03/05/04				NE6116

TCL Volatiles by EPA Method 8260

Chloroethane	<350ug/kg dw		03/04/04		1		VM4803
Bromoethane	<350ug/kg dw		03/04/04		1		VM4803
Vinyl Chloride	<350ug/kg dw		03/04/04		1		VM4803
Chloroethane	<350ug/kg dw		03/04/04		1		VM4803
Methylene Chloride	<350ug/kg dw		03/04/04		1		VM4803
Acetone	<1200ug/kg dw		03/04/04		1		VM4803
Carbon Disulfide	<350ug/kg dw		03/04/04		1		VM4803
1,1-Dichloroethane	<350ug/kg dw		03/04/04		1		VM4803
1,1-Dichloroethane	<350ug/kg dw		03/04/04		1		VM4803
trans-1,2-Dichloroethane	<350ug/kg dw		03/04/04		1		VM4803
cis-1,2-Dichloroethane	<350ug/kg dw		03/04/04		1		VM4803

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204002 Mat:Soil 0333/BCI PHASE 2 SB14(8'-12') 02/26/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Chloroform	<350ug/kg dw		03/04/04		1		VM4803
1,2-Dichloroethane	<350ug/kg dw		03/04/04		1		VM4803
2-Butanone	<1200ug/kg dw		03/04/04		1		VM4803
1,1,1-Trichloroethane	<350ug/kg dw		03/04/04		1		VM4803
Carbon Tetrachloride	<350ug/kg dw		03/04/04		1		VM4803
Bromodichloromethane	<350ug/kg dw		03/04/04		1		VM4803
1,2-Dichloropropane	<350ug/kg dw		03/04/04		1		VM4803
cis-1,3-Dichloropropene	<350ug/kg dw		03/04/04		1		VM4803
Trichloroethene	<350ug/kg dw		03/04/04		1		VM4803
Dibromochloromethane	<350ug/kg dw		03/04/04		1		VM4803
1,1,2-Trichloroethane	<350ug/kg dw		03/04/04		1		VM4803
Benzene	<350ug/kg dw		03/04/04		1		VM4803
trans-1,3-Dichloropropene	<350ug/kg dw		03/04/04		1		VM4803
Bromoform	<350ug/kg dw		03/04/04		1		VM4803
4-Methyl-2-pentanone	<1200ug/kg dw		03/04/04		1		VM4803
2-Nonanone	<1200ug/kg dw		03/04/04		1		VM4803
Tetrachloroethene	<350ug/kg dw		03/04/04		1		VM4803
1,1,2,2-Tetrachloroethane	<350ug/kg dw		03/04/04		1		VM4803
Toluene	<350ug/kg dw		03/04/04		1		VM4803
Chlorobenzene	<350ug/kg dw		03/04/04		1		VM4803
Ethylbenzene	<350ug/kg dw		03/04/04		1		VM4803
Styrene	<350ug/kg dw		03/04/04		1		VM4803
m,p-Xylene	<350ug/kg dw		03/04/04		1		VM4803
o-Xylene	<350ug/kg dw		03/04/04		1		VM4803

TCL Semivolatiles by EPA Method 8270

Phenol	<93,000ug/kg dw		03/09/04				SA4119
bis(2-Chloroethyl)ether	<93,000ug/kg dw		03/09/04				SA4119
2-Chlorophenol	<93,000ug/kg dw		03/09/04				SA4119
1,3-Dichlorobenzene	<93,000ug/kg dw		03/09/04				SA4119
1,4-Dichlorobenzene	<93,000ug/kg dw		03/09/04				SA4119
1,2-Dichlorobenzene	<93,000ug/kg dw		03/09/04				SA4119
2-Methylphenol	<93,000ug/kg dw		03/09/04				SA4119
2,2'-Oxybis(1-Chloropropane)	<93,000ug/kg dw		03/09/04				SA4119
4-Methylphenol	830ug/kg dw		03/09/04				SA4119
n-Nitrosodipropylamine	<93,000ug/kg dw		03/09/04				SA4119
Hexachloroethane	<93,000ug/kg dw		03/09/04				SA4119
Nitrobenzene	<93,000ug/kg dw		03/09/04				SA4119
Isophorone	<93,000ug/kg dw		03/09/04				SA4119
2-Nitrophenol	<93,000ug/kg dw		03/09/04				SA4119
3,4-Dimethylphenol	990ug/kg dw		03/09/04				SA4119
bis(2-Chloroethoxy)methane	<93,000ug/kg dw		03/09/04				SA4119
2,4-Dichlorophenol	<93,000ug/kg dw		03/09/04				SA4119
1,2,4-Trichlorobenzene	<93,000ug/kg dw		03/09/04				SA4119

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_ Lab I.D.: 10170  
Sampled by: Client

-----  
ID:06204002 Mat:Soil 0333/BCI PHASE 2 SBL4(8'-12') 02/26/04 C  
-----

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Naphthalene	>3700ug/kg dw		03/09/04				SA4119
4-Chloroaniline	<93,000ug/kg dw		03/09/04				SA4119
Hexachlorobutadiene	<93,000ug/kg dw		03/09/04				SA4119
4-Chloro-3-methylphenol	<93,000ug/kg dw		03/09/04				SA4119
2-Methylnaphthalene	>3700ug/kg dw		03/09/04				SA4119
Hexachlorocyclopentadiene	<93,000ug/kg dw		03/09/04				SA4119
2,4,6-Trichlorophenol	<93,000ug/kg dw		03/09/04				SA4119
2,4,5-Trichlorophenol	<93,000ug/kg dw		03/09/04				SA4119
1-Chloronaphthalene	<93,000ug/kg dw		03/09/04				SA4119
1-Nitroaniline	<930,000ug/kg d		03/09/04				SA4119
Dimethylphthalate	<93,000ug/kg dw		03/09/04				SA4119
Acenaphthylene	3200ug/kg dw		03/09/04				SA4119
2,6-Dinitrotoluene	<93,000ug/kg dw		03/09/04				SA4119
3-Nitroaniline	<930,000ug/kg d		03/09/04				SA4119
Acenaphthene	>3700ug/kg dw		03/09/04				SA4119
2,4-Dinitrophenol	<930,000ug/kg d		03/09/04				SA4119
4-Nitrophenol	<930,000ug/kg d		03/09/04				SA4119
Dibenzofuran	>3700ug/kg dw		03/09/04				SA4119
2,4-Dinitrotoluene	920ug/kg dw		03/09/04				SA4119
Diethylphthalate	<93,000ug/kg dw		03/09/04				SA4119
4-Chlorophenylphenylether	<93,000ug/kg dw		03/09/04				SA4119
Fluorene	>3700ug/kg dw		03/09/04				SA4119
4-Nitroaniline	<930,000ug/kg d		03/09/04				SA4119
2-Methyl-4,6-dinitrophenol	<930,000ug/kg d		03/09/04				SA4119
n-Nitrosodiphenylamine	<93,000ug/kg dw		03/09/04				SA4119
4-Bromophenylphenylether	<93,000ug/kg dw		03/09/04				SA4119
Hexachlorobenzene	<93,000ug/kg dw		03/09/04				SA4119
Pentachlorophenol	<190,000ug/kg d		03/09/04				SA4119
Phenanthrene	230,000ug/kg dw		03/09/04				SA4119
Anthracene	>3700ug/kg dw		03/09/04				SA4119
Carbazole	>3700ug/kg dw		03/09/04				SA4119
Di-n-butylphthalate	<93,000ug/kg dw		03/09/04				SA4119
Fluoranthene	210,000ug/kg dw		03/09/04				SA4119
Pyrene	140,000ug/kg dw		03/09/04				SA4119
Butylbenzylphthalate	<93,000ug/kg dw		03/09/04				SA4119
3,3'-Dichlorobenzidine	<93,000ug/kg dw		03/09/04				SA4119
Benzo(a)anthracene	>3700ug/kg dw		03/09/04				SA4119
Chrysene	>3700ug/kg dw		03/09/04				SA4119
bis(2-Ethylhexyl)phthalate	1300ug/kg dw		03/09/04				SA4119
Di-n-octylphthalate	<93,000ug/kg dw		03/09/04				SA4119
Benzo(b)fluoranthene	>3700ug/kg dw		03/09/04				SA4119
Benzo(k)fluoranthene	>3700ug/kg dw		03/09/04				SA4119
Benzo(a)pyrene	4400ug/kg dw		03/09/04				SA4119
Indeno(1,2,3-cd)pyrene	>3700ug/kg dw		03/09/04				SA4119

dw = Dry weight

Laboratories, Inc.  
 Results  
 Number: 06204001  
 L.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
 QC: \_\_\_\_\_  
 Lab I.D.: 10170  
 Sampled by: Client

002 Mat: Soil 0333/BCI PHASE 2 SB14(8'-12') 02/26/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL. KEY	KEY	FILES
Dibenzo(a,b)anthracene	530ug/kg dw		03/09/04			SA4119
Benzo(g,h,i)perylene	2500ug/kg dw		03/09/04			SA4119

4003 Mat: Soil 0333/BCI PHASE 2 SB18(8'-12') 02/27/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL. KEY	KEY	FILES
Percent Solids	50%		03/03/04			WB7216
As Arsenic by Low Level	27ug/kg dw		03/05/04			MB6117
As Barium	1800ug/kg dw		03/05/04			MB6116
As Cadmium	4.4ug/kg dw		03/05/04			MB6116
As Chromium	110ug/kg dw		03/05/04			MB6116
As Lead	1800ug/kg dw		03/05/04			MB6116
As Mercury	<0.40ug/kg dw		03/07/04			MB6118
As Selenium by Low Level	<1.0ug/kg dw		03/05/04			MB6117
As Silver	<10ug/kg dw		03/05/04			MB6116

TCL Volatiles by EPA Method 8260

Chloroethane	<1000ug/kg dw		03/03/04		1	VM4802
Bromochloroethane	<1000ug/kg dw		03/03/04		1	VM4802
Vinyl Chloride	<670ug/kg dw		03/03/04		1	VM4802
Chloroethane	<1000ug/kg dw		03/03/04		1	VM4802
Methylene Chloride	<1000ug/kg dw		03/03/04		1	VM4802
Acetone	<3300ug/kg dw		03/03/04		1	VM4802
Carbon Disulfide	<1000ug/kg dw		03/03/04		1	VM4802
1,1-Dichloroethane	<1000ug/kg dw		03/03/04		1	VM4802
1,1-Dichloroethane	<1000ug/kg dw		03/03/04		1	VM4802
trans-1,2-Dichloroethane	<1000ug/kg dw		03/03/04		1	VM4802
cis-1,2-Dichloroethane	<1000ug/kg dw		03/03/04		1	VM4802
Chloroform	<1000ug/kg dw		03/03/04		1	VM4802
1,2-Dichloroethane	<1000ug/kg dw		03/03/04		1	VM4802
2-Butanone	<3300ug/kg dw		03/03/04		1	VM4802
1,1,1-Trichloroethane	<1000ug/kg dw		03/03/04		1	VM4802
Carbon Tetrachloride	<1000ug/kg dw		03/03/04		1	VM4802
Bromodichloroethane	<1000ug/kg dw		03/03/04		1	VM4802
1,2-Dichloropropane	<1000ug/kg dw		03/03/04		1	VM4802
cis-1,3-Dichloropropane	<1000ug/kg dw		03/03/04		1	VM4802
Trichloroethene	<1000ug/kg dw		03/03/04		1	VM4802
Dibromochloroethane	<1000ug/kg dw		03/03/04		1	VM4802
1,1,2-Trichloroethane	<1000ug/kg dw		03/03/04		1	VM4802
Benzene	<1000ug/kg dw		03/03/04		1	VM4802
trans-1,3-Dichloropropane	<1000ug/kg dw		03/03/04		1	VM4802
Bromoform	<1000ug/kg dw		03/03/04		1	VM4802
4-Methyl-2-pentanone	<3300ug/kg dw		03/03/04		1	VM4802

\* = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204003 Mat:Soil 0333/BCI PHASE 2 SB18(8'-12') 03/27/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	XX	KEY	FILES
2-Hexanone	<3300ug/kg dw		03/03/04		1		VM4802
Tetrachloroethene	<1000ug/kg dw		03/03/04		1		VM4802
1,1,1,2-Tetrachloroethane	<1000ug/kg dw		03/03/04		1		VM4802
Toluene	<1000ug/kg dw		03/03/04		1		VM4802
Chlorobenzene	<1000ug/kg dw		03/03/04		1		VM4802
Ethylbenzene	<1000ug/kg dw		03/03/04		1		VM4802
Styrene	<1000ug/kg dw		03/03/04		1		VM4802
m,p-Xylene	2300ug/kg dw		03/03/04				VM4802
o-Xylene	<1000ug/kg dw		03/03/04		1		VM4802

TCL Semivolatiles by EPA Method 8270

Phenol	<670ug/kg dw		03/08/04				SA4119
bis(2-Chloroethyl)ether	<670ug/kg dw		03/08/04				SA4119
2-Chlorophenol	<670ug/kg dw		03/08/04				SA4119
1,3-Dichlorobenzene	<670ug/kg dw		03/08/04				SA4119
1,4-Dichlorobenzene	<670ug/kg dw		03/08/04				SA4119
1,2-Dichlorobenzene	<670ug/kg dw		03/08/04				SA4119
2-Methylphenol	<670ug/kg dw		03/08/04				SA4119
2,2'-Oxybis(1-Chloropropane)	<670ug/kg dw		03/08/04				SA4119
4-Methylphenol	<670ug/kg dw		03/08/04				SA4119
n-Nitrosodipropylamine	<670ug/kg dw		03/08/04				SA4119
Hexachloroethane	<670ug/kg dw		03/08/04				SA4119
Nitrobenzene	<670ug/kg dw		03/08/04				SA4119
Isophorone	<670ug/kg dw		03/08/04				SA4119
2-Nitrophenol	<670ug/kg dw		03/08/04				SA4119
2,4-Dimethylphenol	<670ug/kg dw		03/08/04				SA4119
bis(2-Chloroethoxy)methane	<670ug/kg dw		03/08/04				SA4119
2,4-Dichlorophenol	<670ug/kg dw		03/08/04				SA4119
1,2,4-Trichlorobenzene	<670ug/kg dw		03/08/04				SA4119
Naphthalene	2000ug/kg dw		03/08/04				SA4119
4-Chloroaniline	<670ug/kg dw		03/08/04				SA4119
Hexachlorobutadiene	<670ug/kg dw		03/08/04				SA4119
4-Chloro-3-methylphenol	<670ug/kg dw		03/08/04				SA4119
2-Methylnaphthalene	2400ug/kg dw		03/08/04				SA4119
Hexachlorocyclopentadiene	<670ug/kg dw		03/08/04				SA4119
2,4,6-Trichlorophenol	<670ug/kg dw		03/08/04				SA4119
2,4,5-Trichlorophenol	<670ug/kg dw		03/08/04				SA4119
2-Chloronaphthalene	<670ug/kg dw		03/08/04				SA4119
2-Nitroaniline	<670ug/kg dw		03/08/04				SA4119
Dimethylphthalate	<670ug/kg dw		03/08/04				SA4119
Acenaphthylene	<670ug/kg dw		03/08/04				SA4119
2,6-Dinitrotoluene	<670ug/kg dw		03/08/04				SA4119
3-Nitroaniline	<670ug/kg dw		03/08/04				SA4119
Acenaphthene	<670ug/kg dw		03/08/04				SA4119

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204003 Mat:Soil 0333/BCI PHASE 2 SB18(8'-12') 02/27/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
2,4-Dinitrophenol	<6700ug/kg dw		03/08/04				SA4119
4-Nitrophenol	<6700ug/kg dw		03/08/04				SA4119
Dibenzofuran	<6700ug/kg dw		03/08/04				SA4119
2,4-Dinitrotoluene	<6700ug/kg dw		03/08/04				SA4119
Diethylphthalate	<6700ug/kg dw		03/08/04				SA4119
4-Chlorophenylphenylether	<6700ug/kg dw		03/08/04				SA4119
Fluorane	<6700ug/kg dw		03/08/04				SA4119
4-Nitroaniline	<6700ug/kg dw		03/08/04				SA4119
2-Methyl-4,6-dinitrophenol	<6700ug/kg dw		03/08/04				SA4119
n-Nitrosodiphenylamine	<6700ug/kg dw		03/08/04				SA4119
4-Bromophenylphenylether	<6700ug/kg dw		03/08/04				SA4119
Hexachlorobenzene	<6700ug/kg dw		03/08/04				SA4119
Pentachlorophenol	<1300ug/kg dw		03/08/04				SA4119
Phenanthrene	>3800ug/kg dw		03/08/04				SA4119
Anthracene	>3800ug/kg dw		03/08/04				SA4119
Carbazole	>3800ug/kg dw		03/08/04				SA4119
Di-n-butylphthalate	<6700ug/kg dw		03/08/04				SA4119
Fluoranthene	>3800ug/kg dw		03/08/04				SA4119
Pyrene	>3800ug/kg dw		03/08/04				SA4119
Butylbenzylphthalate	<6700ug/kg dw		03/08/04				SA4119
3,3'-Dichlorobenzidine	<6700ug/kg dw		03/08/04				SA4119
Benzo(a)anthracene	>3800ug/kg dw		03/08/04				SA4119
Chrysene	<6700ug/kg dw		03/08/04				SA4119
bis(2-Ethylhexyl)phthalate	<6700ug/kg dw		03/08/04				SA4119
Di-n-octylphthalate	<6700ug/kg dw		03/08/04				SA4119
Benzo(b)fluoranthene	>3800ug/kg dw		03/08/04				SA4119
Benzo(k)fluoranthene	<6700ug/kg dw		03/08/04				SA4119
Benzo(a)pyrene	<6700ug/kg dw		03/08/04				SA4119
Indeno(1,2,3-cd)pyrene	<6700ug/kg dw		03/08/04				SA4119
Dibenzo(a,h)anthracene	<6700ug/kg dw		03/08/04				SA4119
Benzo(ghi)perylene	<6700ug/kg dw		03/08/04				SA4119

ID:06204004 Mat:Soil 0333/BCI PHASE 2 SB21(4'-12') 02/27/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Percent Solids	70%		03/03/04				WE7216
Total Arsenic by Low Level	31mg/kg dw		03/05/04				MB6117
Total Barium	560mg/kg dw		03/05/04				MB6116
Total Cadmium	2.5mg/kg dw		03/05/04				MB6116
Total Chromium	1800mg/kg dw		03/05/04				MB6116
Total Lead	9300mg/kg dw		03/05/04				MB6116
Total Mercury	1.4mg/kg dw		03/07/04				MB6118
Total Selenium by Low Level	<0.72mg/kg dw		03/05/04				MB6117

dw = Dry weight



DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204004 Mat:Soil 0333/BCI PHASE 2 SB21(4'-12') 02/27/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Total Silver	<7.1ug/kg dw		03/05/04				NR6116

TCL Volatiles by EPA Method 8260

Chloroethane	<710ug/kg dw		03/03/04		1		VM4802
Bromomethane	<710ug/kg dw		03/03/04		1		VM4802
Vinyl Chloride	<480ug/kg dw		03/03/04		1		VM4802
Chloroethane	<710ug/kg dw		03/03/04		1		VM4802
Methylene Chloride	<710ug/kg dw		03/03/04		1		VM4802
Acetone	<2400ug/kg dw		03/03/04		1		VM4802
Carbon Disulfide	<710ug/kg dw		03/03/04		1		VM4802
1,1-Dichloroethane	<710ug/kg dw		03/03/04		1		VM4802
1,1-Dichloroethane	<710ug/kg dw		03/03/04		1		VM4802
trans-1,2-Dichloroethane	<710ug/kg dw		03/03/04		1		VM4802
cis-1,2-Dichloroethane	<710ug/kg dw		03/03/04		1		VM4802
Chloroform	<710ug/kg dw		03/03/04		1		VM4802
1,2-Dichloroethane	<710ug/kg dw		03/03/04		1		VM4802
2-Butanone	<2400ug/kg dw		03/03/04		1		VM4802
1,1,1-Trichloroethane	<710ug/kg dw		03/03/04		1		VM4802
Carbon Tetrachloride	<710ug/kg dw		03/03/04		1		VM4802
Bromodichloromethane	<710ug/kg dw		03/03/04		1		VM4802
1,2-Dichloropropane	<710ug/kg dw		03/03/04		1		VM4802
cis-1,3-Dichloropropene	<710ug/kg dw		03/03/04		1		VM4802
Trichloroethane	<710ug/kg dw		03/03/04		1		VM4802
Dibromochloromethane	<710ug/kg dw		03/03/04		1		VM4802
1,1,2-Trichloroethane	<710ug/kg dw		03/03/04		1		VM4802
Benzene	<710ug/kg dw		03/03/04		1		VM4802
trans-1,3-Dichloropropene	<710ug/kg dw		03/03/04		1		VM4802
Bromofor	<710ug/kg dw		03/03/04		1		VM4802
4-Methyl-2-pentanone	<2400ug/kg dw		03/03/04		1		VM4802
2-Hexanone	<2400ug/kg dw		03/03/04		1		VM4802
Tetrachloroethane	<710ug/kg dw		03/03/04		1		VM4802
1,1,1,2-Tetrachloroethane	<710ug/kg dw		03/03/04		1		VM4802
Toluene	<710ug/kg dw		03/03/04		1		VM4802
Chlorobenzene	<710ug/kg dw		03/03/04		1		VM4802
Ethylbenzene	<710ug/kg dw		03/03/04		1		VM4802
Styrene	<710ug/kg dw		03/03/04		1		VM4802
m,p-Xylene	<710ug/kg dw		03/03/04		1		VM4802
o-Xylene	<710ug/kg dw		03/03/04		1		VM4802

TCL Semivolatiles by EPA Method 8270

Phenol	<4800ug/kg dw		03/09/04				SA4119
bis(2-Chloroethyl)ether	<4800ug/kg dw		03/09/04				SA4119
2-Chlorophenol	<4800ug/kg dw		03/09/04				SA4119
1,3-Dichlorobenzene	<4800ug/kg dw		03/09/04				SA4119

dw = Dry weight



DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204004 Mat:Soil 0333/BCI PHASE 2 SB21(4'-12') 02/27/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
1,4-Dichlorobenzene	<4800ug/kg dw		03/09/04				SA4119
1,2-Dichlorobenzene	<4800ug/kg dw		03/09/04				SA4119
2-Methylphenol	<4800ug/kg dw		03/09/04				SA4119
2,2'-Oxybis(1-Chloropropane)	<4800ug/kg dw		03/09/04				SA4119
4-Methylphenol	<4800ug/kg dw		03/09/04				SA4119
n-Nitrosodipropylamine	<4800ug/kg dw		03/09/04				SA4119
Hexachloroethane	<4800ug/kg dw		03/09/04				SA4119
Nitrobenzene	<4800ug/kg dw		03/09/04				SA4119
Isophorone	<4800ug/kg dw		03/09/04				SA4119
2-Nitrophenol	<4800ug/kg dw		03/09/04				SA4119
2,4-Dimethylphenol	<4800ug/kg dw		03/09/04				SA4119
bis(2-Chloroethoxy)methane	<4800ug/kg dw		03/09/04				SA4119
2,4-Dichlorophenol	<4800ug/kg dw		03/09/04				SA4119
1,2,4-Trichlorobenzene	<4800ug/kg dw		03/09/04				SA4119
Naphthalene	1200ug/kg dw		03/09/04				SA4119
4-Chloroaniline	<4800ug/kg dw		03/09/04				SA4119
Hexachlorobutadiene	<4800ug/kg dw		03/09/04				SA4119
4-Chloro-3-methylphenol	<4800ug/kg dw		03/09/04				SA4119
2-Methylnaphthalene	2300ug/kg dw		03/09/04				SA4119
Hexachlorocyclopentadiene	<4800ug/kg dw		03/09/04				SA4119
2,4,6-Trichlorophenol	<4800ug/kg dw		03/09/04				SA4119
2,4,5-Trichlorophenol	<4800ug/kg dw		03/09/04				SA4119
2-Chloronaphthalene	<4800ug/kg dw		03/09/04				SA4119
2-Nitroaniline	<48,000ug/kg dw		03/09/04				SA4119
Dimethylphthalate	<4800ug/kg dw		03/09/04				SA4119
Acenaphthylene	580ug/kg dw		03/09/04				SA4119
2,6-Dinitrotoluene	<4800ug/kg dw		03/09/04				SA4119
3-Nitroaniline	<48,000ug/kg dw		03/09/04				SA4119
Acenaphthene	3000ug/kg dw		03/09/04				SA4119
2,4-Dinitrophenol	<48,000ug/kg dw		03/09/04				SA4119
4-Nitrophenol	<48,000ug/kg dw		03/09/04				SA4119
Dibenzofuran	1400ug/kg dw		03/09/04				SA4119
2,4-Dinitrotoluene	<4800ug/kg dw		03/09/04				SA4119
Diethylphthalate	<4800ug/kg dw		03/09/04				SA4119
4-Chlorophenylphenylether	<4800ug/kg dw		03/09/04				SA4119
Fluorene	3400ug/kg dw		03/09/04				SA4119
4-Nitroaniline	<48,000ug/kg dw		03/09/04				SA4119
2-Methyl-4,6-dinitrophenol	<48,000ug/kg dw		03/09/04				SA4119
n-Nitrosodiphenylamine	<4800ug/kg dw		03/09/04				SA4119
4-Bromophenylphenylether	<4800ug/kg dw		03/09/04				SA4119
Hexachlorobenzene	<4800ug/kg dw		03/09/04				SA4119
Pentachlorophenol	<9500ug/kg dw		03/09/04				SA4119
Phenanthrene	15,000ug/kg dw		03/09/04				SA4119
Anthracene	<4800ug/kg dw		03/09/04				SA4119

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204004 Mat:Soil 0333/BCI PHASE 2 SB21(4<sup>1</sup>-12<sup>1</sup>) 02/27/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Carbazole	1200ug/kg dw		03/09/04				SA4119
Di-n-butylphthalate	>3700ug/kg dw		03/09/04				SA4119
Fluoranthene	13,000ug/kg dw		03/09/04				SA4119
Pyrene	11,000ug/kg dw		03/09/04				SA4119
Butylbenzylphthalate	<4900ug/kg dw		03/09/04				SA4119
3,3'-Dichlorobenzidine	<4900ug/kg dw		03/09/04				SA4119
Benzo(a)anthracene	5600ug/kg dw		03/09/04				SA4119
Chrysene	4100ug/kg dw		03/09/04				SA4119
bis(2-Ethylhexyl)phthalate	690ug/kg dw		03/09/04				SA4119
Di-n-octylphthalate	<4900ug/kg dw		03/09/04				SA4119
Benzo(h)fluoranthene	3700ug/kg dw		03/09/04				SA4119
Benzo(k)fluoranthene	1700ug/kg dw		03/09/04				SA4119
Benzo(a)pyrene	3600ug/kg dw		03/09/04				SA4119
Indeno(1,2,3-cd)pyrene	1600ug/kg dw		03/09/04				SA4119
Dibenzo(a,h)anthracene	<4900ug/kg dw		03/09/04				SA4119
Benzo(g,h)perylene	1600ug/kg dw		03/09/04				SA4119

ID:06204005 Mat:Soil 0333/BCI PHASE 2 SB22(4<sup>1</sup>-16<sup>1</sup>) 02/27/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Percent Solids	76%		03/03/04				VM6116
Total Arsenic by Low Level	17ng/kg dw		03/05/04				MB6117
Total Barium	1100ng/kg dw		03/05/04				MB6116
Total Cadmium	3.5ng/kg dw		03/05/04				MB6116
Total Chromium	200ng/kg dw		03/05/04				MB6116
Total Lead	1900ng/kg dw		03/05/04				MB6116
Total Mercury	0.95ng/kg dw		03/07/04				MB6119
Total Selenium by Low Level	<0.66ng/kg dw		03/05/04				MB6117
Total Silver	<6.6ng/kg dw		03/05/04				MB6116

TCL Volatiles by EPA Method 8260

Chloroethane	<660ug/kg dw		03/03/04		5		VM4802
Bromoethane	<660ug/kg dw		03/03/04		5		VM4802
Vinyl Chloride	<440ug/kg dw		03/03/04		5		VM4802
Chloroethane	<660ug/kg dw		03/03/04		5		VM4802
Methylene Chloride	<660ug/kg dw		03/03/04		5		VM4802
Acetone	<2200ug/kg dw		03/03/04		5		VM4802
Carbon Disulfide	<660ug/kg dw		03/03/04		5		VM4802
1,1-Dichloroethane	<660ug/kg dw		03/03/04		5		VM4802
1,1-Dichloroethane	<660ug/kg dw		03/03/04		5		VM4802
trans-1,2-Dichloroethane	<660ug/kg dw		03/03/04		5		VM4802
cis-1,2-Dichloroethane	<660ug/kg dw		03/03/04		5		VM4802
Chloroform	<660ug/kg dw		03/03/04		5		VM4802

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, IEC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID: 06204005 Mat: Soil 0333/BCI PHASE 2 SB22(4'-16') 02/27/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
1,2-Dichloroethane	<660ug/kg dw		03/03/04		5		VM4802
2-Butanone	<2200ug/kg dw		03/03/04		5		VM4802
1,1,1-Trichloroethane	<660ug/kg dw		03/03/04		5		VM4802
Carbon Tetrachloride	<660ug/kg dw		03/03/04		5		VM4802
Bromodichloromethane	<660ug/kg dw		03/03/04		5		VM4802
1,2-Dichloropropane	<660ug/kg dw		03/03/04		5		VM4802
cis-1,3-Dichloropropane	<660ug/kg dw		03/03/04		5		VM4802
Trichloroethene	<660ug/kg dw		03/03/04		5		VM4802
Dibromochloromethane	<660ug/kg dw		03/03/04		5		VM4802
1,1,2-Trichloroethane	<660ug/kg dw		03/03/04		5		VM4802
Benzene	<660ug/kg dw		03/03/04		5		VM4802
trans-1,3-Dichloropropane	<660ug/kg dw		03/03/04		5		VM4802
Bromoform	<660ug/kg dw		03/03/04		5		VM4802
4-Methyl-2-pentanone	<2200ug/kg dw		03/03/04		5		VM4802
2-Hexanone	<2200ug/kg dw		03/03/04		5		VM4802
Tetracloroethene	<660ug/kg dw		03/03/04		5		VM4802
1,1,2,2-Tetracloroethane	<660ug/kg dw		03/03/04		5		VM4802
Toluene	<660ug/kg dw		03/03/04		5		VM4802
Chlorobenzene	<660ug/kg dw		03/03/04		5		VM4802
Ethylbenzene	930ug/kg dw		03/03/04				VM4802
Styrene	<660ug/kg dw		03/03/04		5		VM4802
m,p-Xylene	9700ug/kg dw		03/03/04				VM4802
o-Xylene	1600ug/kg dw		03/03/04				VM4802

TCL Semivolatiles by EPA Method 8270

Phenol	<4400ug/kg dw		03/09/04				SA4119
bis(2-Chloroethyl)ether	<4400ug/kg dw		03/09/04				SA4119
2-Chlorophenol	<4400ug/kg dw		03/09/04				SA4119
1,3-Dichlorobenzene	<4400ug/kg dw		03/09/04				SA4119
1,4-Dichlorobenzene	<4400ug/kg dw		03/09/04				SA4119
1,2-Dichlorobenzene	<4400ug/kg dw		03/09/04				SA4119
2-Methylphenol	<4400ug/kg dw		03/09/04				SA4119
2,2'-Oxybis(1-Chloropropane)	<4400ug/kg dw		03/09/04				SA4119
4-Methylphenol	<4400ug/kg dw		03/09/04				SA4119
n-Nitrosodipropylamine	<4400ug/kg dw		03/09/04				SA4119
Hexachloroethane	<4400ug/kg dw		03/09/04				SA4119
Nitrobenzene	<4400ug/kg dw		03/09/04				SA4119
Isophorone	<4400ug/kg dw		03/09/04				SA4119
2-Nitrophenol	<4400ug/kg dw		03/09/04				SA4119
2,4-Dimethylphenol	<4400ug/kg dw		03/09/04				SA4119
bis(2-Chloroethoxy)methane	<4400ug/kg dw		03/09/04				SA4119
2,4-Dichlorophenol	<4400ug/kg dw		03/09/04				SA4119
1,2,4-Trichlorobenzene	<4400ug/kg dw		03/09/04				SA4119
Naphthalene	4300ug/kg dw		03/09/04				SA4119

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204005 Mat:Soil 0333/BCI PHASE 2 SB22(4<sup>1</sup>-16<sup>1</sup>) 02/27/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
4-Chloroaniline	<4400ug/kg dw		03/09/04				SA4119
Hexachlorobutadiene	<4400ug/kg dw		03/09/04				SA4119
4-Chloro-3-methylphenol	<4400ug/kg dw		03/09/04				SA4119
2-Methylnaphthalene	3500ug/kg dw		03/09/04				SA4119
Hexachlorocyclopentadiene	<4400ug/kg dw		03/09/04				SA4119
2,4,6-Trichlorophenol	<4400ug/kg dw		03/09/04				SA4119
2,4,5-Trichlorophenol	<4400ug/kg dw		03/09/04				SA4119
2-Chloronaphthalene	<4400ug/kg dw		03/09/04				SA4119
2-Nitroaniline	<44,000ug/kg dw		03/09/04				SA4119
Dimethylphthalate	<4400ug/kg dw		03/09/04				SA4119
Acenaphthylene	<4400ug/kg dw		03/09/04				SA4119
2,6-Dinitrotoluene	<4400ug/kg dw		03/09/04				SA4119
3-Nitroaniline	<44,000ug/kg dw		03/09/04				SA4119
Acenaphthene	3200ug/kg dw		03/09/04				SA4119
2,4-Dinitrophenol	<44,000ug/kg dw		03/09/04				SA4119
4-Nitrophenol	<44,000ug/kg dw		03/09/04				SA4119
Dibenzofuran	2200ug/kg dw		03/09/04				SA4119
2,4-Dinitrotoluene	<4400ug/kg dw		03/09/04				SA4119
Diethylphthalate	<4400ug/kg dw		03/09/04				SA4119
1-Chlorophenylphenylether	<4400ug/kg dw		03/09/04				SA4119
Fluorant	3600ug/kg dw		03/09/04				SA4119
4-Nitroaniline	6400ug/kg dw		03/09/04				SA4119
2-Methyl-4,6-dinitrophenol	<44,000ug/kg dw		03/09/04				SA4119
N-Nitrosodiphenylamine	<4400ug/kg dw		03/09/04				SA4119
4-Bromophenylphenylether	<4400ug/kg dw		03/09/04				SA4119
Hexachlorobenzene	<4400ug/kg dw		03/09/04				SA4119
Pentachlorophenol	<8800ug/kg dw		03/09/04				SA4119
Phenanthrene	21,000ug/kg dw		03/09/04				SA4119
Anthracene	5100ug/kg dw		03/09/04				SA4119
Carbazole	1900ug/kg dw		03/09/04				SA4119
Di-n-butylphthalate	1800ug/kg dw		03/09/04				SA4119
Fluoranthene	20,000ug/kg dw		03/09/04				SA4119
Pyrene	15,000ug/kg dw		03/09/04				SA4119
Butylbenzylphthalate	<4400ug/kg dw		03/09/04				SA4119
3,3'-Dichlorobenzidine	<4400ug/kg dw		03/09/04				SA4119
Benzo(a)anthracene	7800ug/kg dw		03/09/04				SA4119
Chrysene	6900ug/kg dw		03/09/04				SA4119
bis(2-Ethylhexyl)phthalate	940ug/kg dw		03/09/04				SA4119
Di-n-octylphthalate	<4400ug/kg dw		03/09/04				SA4119
Benzo(b)fluoranthene	8000ug/kg dw		03/09/04				SA4119
Benzo(k)fluoranthene	2600ug/kg dw		03/09/04				SA4119
Benzo(a)pyrene	5400ug/kg dw		03/09/04				SA4119
Indeno(1,2,3-cd)pyrene	2900ug/kg dw		03/09/04				SA4119
Dibenzo(a,h)anthracene	<4400ug/kg dw		03/09/04				SA4119

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204005 Mat:Soil 0333/BCI PHASE 2 SB22(4'-16') 02/27/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Benzo(g,h,i)perylene	2800ug/kg dw		03/09/04				BA4119

ID:06204006 Mat:Soil 0333/BCI PHASE 2 SE24&25(0'-4') COMP 02/27/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Percent Solids	80%		03/03/04				WE7216
Total Arsenic by Low Level	9.3ug/kg dw		03/05/04				MB6117
Total Barium	39ug/kg dw		03/05/04				MB6116
Total Cadmium	4.6ug/kg dw		03/05/04				MB6116
Total Chromium	23ug/kg dw		03/05/04				MB6116
Total Lead	51ug/kg dw		03/05/04				MB6116
Total Mercury	<0.26ug/kg dw		03/07/04				MB6118
Total Selenium by Low Level	<0.61ug/kg dw		03/05/04				MB6117
Total Silver	<6.3ug/kg dw		03/05/04				MB6116

ID:06204007 Mat:Soil 0333/BCI PHASE 2 SE27&28(0'-4') COMP 02/27/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Percent Solids	82%		03/03/04				WE7216
Total Arsenic by Low Level	2.9ug/kg dw		03/05/04				MB6117
Total Barium	40ug/kg dw		03/05/04				MB6116
Total Cadmium	1.5ug/kg dw		03/05/04				MB6116
Total Chromium	10.0ug/kg dw		03/05/04				MB6116
Total Lead	23ug/kg dw		03/05/04				MB6116
Total Mercury	<0.25ug/kg dw		03/07/04				MB6118
Total Selenium by Low Level	0.95ug/kg dw		03/05/04				MB6117
Total Silver	<6.1ug/kg dw		03/05/04				MB6116

ID:06204008 Mat:Soil 0333/BCI PHASE 2 SE26&29(0'-4') COMP 02/27/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Percent Solids	82%		03/03/04				WE7216
Total Arsenic by Low Level	6.0ug/kg dw		03/05/04				MB6117
Total Barium	84ug/kg dw		03/05/04				MB6116
Total Cadmium	1.0ug/kg dw		03/05/04				MB6116
Total Chromium	<6.1ug/kg dw		03/05/04				MB6116
Total Lead	280ug/kg dw		03/05/04				MB6116
Total Mercury	<0.25ug/kg dw		03/07/04				MB6118
Total Selenium by Low Level	<0.61ug/kg dw		03/05/04				MB6117
Total Silver	<6.1ug/kg dw		03/05/04				MB6116

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204009 Mat:Soil 0333/BCI PHASE 2 SE30,31,32(4'-10') 03/01/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KNY	KNY	FILES#
Percent Solids	88%		03/03/04				WF7216
Total Arsenic by Low Level	<1.2ug/kg dw		03/05/04				MB6117
Total Barium	38ug/kg dw		03/05/04				MB6116
Total Cadmium	1.3ug/kg dw		03/05/04				MB6116
Total Chromium	8.9ug/kg dw		03/05/04				MB6116
Total Lead	14ug/kg dw		03/05/04				MB6116
Total Mercury	<0.23ug/kg dw		03/07/04				MB6118
Total Selenium by Low Level	<0.57ug/kg dw		03/05/04				MB6117
Total Silver	<5.7ug/kg dw		03/05/04				MB6116

TCL Volatiles by EPA Method 8260

Chloromethane	<17ug/kg dw		03/04/04		5		VM4803
Bromomethane	<17ug/kg dw		03/04/04		5		VM4803
Vinyl Chloride	<13ug/kg dw		03/04/04		5		VM4803
Chloroethene	<17ug/kg dw		03/04/04		5		VM4803
Methylene Chloride	<17ug/kg dw		03/04/04		5		VM4803
Acetone	<57ug/kg dw		03/04/04		5		VM4803
Carbon Disulfide	<17ug/kg dw		03/04/04		5		VM4803
1,1-Dichloroethane	<17ug/kg dw		03/04/04		5		VM4803
1,1-Dichloroethane	<17ug/kg dw		03/04/04		5		VM4803
trans-1,2-Dichloroethane	<17ug/kg dw		03/04/04		5		VM4803
cis-1,2-Dichloroethane	<17ug/kg dw		03/04/04		5		VM4803
Chloroform	<17ug/kg dw		03/04/04		5		VM4803
1,2-Dichloroethane	<17ug/kg dw		03/04/04		5		VM4803
2-Butanone	<57ug/kg dw		03/04/04		5		VM4803
1,1,1-Trichloroethane	<17ug/kg dw		03/04/04		5		VM4803
Carbon Tetrachloride	<17ug/kg dw		03/04/04		5		VM4803
Bromodichloromethane	<17ug/kg dw		03/04/04		5		VM4803
1,2-Dichloropropane	<17ug/kg dw		03/04/04		5		VM4803
cis-1,2-Dichloropropane	<17ug/kg dw		03/04/04		5		VM4803
Trichloroethene	100ug/kg dw		03/04/04				VM4803
Dibromochloromethane	<17ug/kg dw		03/04/04		5		VM4803
1,1,2-Trichloroethane	<17ug/kg dw		03/04/04		5		VM4803
Benzene	<17ug/kg dw		03/04/04		5		VM4803
trans-1,3-Dichloropropene	<17ug/kg dw		03/04/04		5		VM4803
Bromoform	<17ug/kg dw		03/04/04		5		VM4803
4-Methyl-2-pentanone	<57ug/kg dw		03/04/04		5		VM4803
2-Hexanone	<57ug/kg dw		03/04/04		5		VM4803
Tetrachloroethane	<17ug/kg dw		03/04/04		5		VM4803
1,1,2,2-Tetrachloroethane	<17ug/kg dw		03/04/04		5		VM4803
Toluene	<17ug/kg dw		03/04/04		5		VM4803
Chlorobenzene	<17ug/kg dw		03/04/04		5		VM4803
Ethylbenzene	<17ug/kg dw		03/04/04		5		VM4803
Styrene	<17ug/kg dw		03/04/04		5		VM4803

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204009 Mat:Soil 0333/BCI PHASE 2 SB30,31,32(4'-10') 03/01/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
m,p-Xylene	<17ug/kg dw		03/04/04		5		VM4803
o-Xylene	<17ug/kg dw		03/04/04		5		VM4803

ID:06204010 Mat:Soil 0333/BCI PHASE 2 SB33(0'-4') 03/01/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Percent Solids	73%		03/03/04				WE7216
Total Arsenic by Low Level	24ug/kg dw		03/05/04				MB6117
Total Barium	290ug/kg dw		03/05/04				MB6116
Total Cadmium	5.6ug/kg dw		03/05/04				MB6116
Total Chromium	25ug/kg dw		03/05/04				MB6116
Total Lead	210ug/kg dw		03/05/04				MB6116
Total Mercury	0.37ug/kg dw		03/07/04				MB6118
Total Selenium by Low Level	7.5ug/kg dw		03/05/04				MB6117
Total Silver	<6.8ug/kg dw		03/05/04				MB6116

TCL Volatiles by EPA Method 8260

Chloromethane	<660ug/kg dw		03/03/04		5		VM4802
Bromomethane	<660ug/kg dw		03/03/04		5		VM4802
Vinyl Chloride	<440ug/kg dw		03/03/04		5		VM4802
Chloroethane	<660ug/kg dw		03/03/04		5		VM4802
Methylene Chloride	<660ug/kg dw		03/03/04		5		VM4802
Acetone	<2200ug/kg dw		03/03/04		5		VM4802
Carbon Disulfide	<660ug/kg dw		03/03/04		5		VM4802
1,1-Dichloroethane	<660ug/kg dw		03/03/04		5		VM4802
1,1-Dichloroethane	<660ug/kg dw		03/03/04		5		VM4802
trans-1,2-Dichloroethane	<660ug/kg dw		03/03/04		5		VM4802
cis-1,2-Dichloroethane	<660ug/kg dw		03/03/04		5		VM4802
Chloroform	<660ug/kg dw		03/03/04		5		VM4802
1,2-Dichloroethane	<660ug/kg dw		03/03/04		5		VM4802
2-Butanone	<2200ug/kg dw		03/03/04		5		VM4802
1,1,1-Trichloroethane	<660ug/kg dw		03/03/04		5		VM4802
Carbon Tetrachloride	<660ug/kg dw		03/03/04		5		VM4802
Bromodichloromethane	<660ug/kg dw		03/03/04		5		VM4802
1,2-Dichloropropane	<660ug/kg dw		03/03/04		5		VM4802
cis-1,3-Dichloropropene	<660ug/kg dw		03/03/04		5		VM4802
Trichloroethane	<660ug/kg dw		03/03/04		5		VM4802
Dibromochloromethane	<660ug/kg dw		03/03/04		5		VM4802
1,1,2-Trichloroethane	<660ug/kg dw		03/03/04		5		VM4802
Benzene	<660ug/kg dw		03/03/04		5		VM4802
trans-1,3-Dichloropropene	<660ug/kg dw		03/03/04		5		VM4802
Bromoform	<660ug/kg dw		03/03/04		5		VM4802
4-Methyl-2-pentanone	<2200ug/kg dw		03/03/04		5		VM4802

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204010 Mat:Soil 0333/BCI PHASE 2 SB33(0'-4') 03/01/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL. KEY	KEY	FILE#
3-Hexanone	<2200ug/kg dw		03/03/04		5	VM4802
Tetrachloroethane	<660ug/kg dw		03/03/04		5	VM4802
1,1,2,2-Tetrachloroethane	<660ug/kg dw		03/03/04		5	VM4802
Toluene	<660ug/kg dw		03/03/04		5	VM4802
Chlorobenzene	<660ug/kg dw		03/03/04		5	VM4802
Ethylbenzene	<660ug/kg dw		03/03/04		5	VM4802
Styrene	<660ug/kg dw		03/03/04		5	VM4802
m,p-Xylene	7600ug/kg dw		03/03/04			VM4802
o-Xylene	<660ug/kg dw		03/03/04		5	VM4802

TCL Semivolatiles by EPA Method 8270

Phenol	<4600ug/kg dw		03/10/04			SA4119
bis(2-Chloroethyl)ether	<4600ug/kg dw		03/10/04			SA4119
2-Chlorophenol	<4600ug/kg dw		03/10/04			SA4119
1,3-Dichlorobenzene	<4600ug/kg dw		03/10/04			SA4119
1,4-Dichlorobenzene	<4600ug/kg dw		03/10/04			SA4119
1,2-Dichlorobenzene	<4600ug/kg dw		03/10/04			SA4119
2-Methylphenol	<4600ug/kg dw		03/10/04			SA4119
2,2'-Oxybis(1-Chloropropane)	<4600ug/kg dw		03/10/04			SA4119
4-Methylphenol	<4600ug/kg dw		03/10/04			SA4119
n-Nitrosodipropylamine	<4600ug/kg dw		03/10/04			SA4119
Hexachloroethane	<4600ug/kg dw		03/10/04			SA4119
Nitrobenzene	<4600ug/kg dw		03/10/04			SA4119
Isophorone	<4600ug/kg dw		03/10/04			SA4119
2-Nitrophenol	<4600ug/kg dw		03/10/04			SA4119
2,4-Dimethylphenol	<4600ug/kg dw		03/10/04			SA4119
bis(2-Chloroethoxy)methane	<4600ug/kg dw		03/10/04			SA4119
2,4-Dichlorophenol	<4600ug/kg dw		03/10/04			SA4119
1,2,4-Trichlorobenzene	<4600ug/kg dw		03/10/04			SA4119
Naphthalene	<4600ug/kg dw		03/10/04			SA4119
4-Chloroaniline	<4600ug/kg dw		03/10/04			SA4119
Hexachlorobutadiene	<4600ug/kg dw		03/10/04			SA4119
4-Chloro-1-methylphenol	<4600ug/kg dw		03/10/04			SA4119
2-Methylnaphthalene	1500ug/kg dw		03/10/04			SA4119
Hexachlorocyclopentadiene	<4600ug/kg dw		03/10/04			SA4119
2,4,6-Trichlorophenol	<4600ug/kg dw		03/10/04			SA4119
2,4,5-Trichlorophenol	<4600ug/kg dw		03/10/04			SA4119
1-Chloronaphthalene	<4600ug/kg dw		03/10/04			SA4119
2-Nitroaniline	<46,000ug/kg dw		03/10/04			SA4119
Dimethylnaphthalate	<4600ug/kg dw		03/10/04			SA4119
Acenaphthylene	<4600ug/kg dw		03/10/04			SA4119
2,6-Dinitrotoluene	<4600ug/kg dw		03/10/04			SA4119
3-Nitroaniline	<46,000ug/kg dw		03/10/04			SA4119
Acenaphthene	<4600ug/kg dw		03/10/04			SA4119

dw = Dry weight



DATE: / /

Upstate Laboratories, Inc.  
 Analysis Results  
 Report Number: 06204001  
 Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
 QC: \_\_\_\_\_  
 Lab I.D.: 10170  
 Sampled by: Client

ID:06204010 Mat:Soil 0333/BCI PHASE 2 SB33(0'-4') 03/01/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
2,4-Dinitrophenol	<46,000ug/kg dw		03/10/04				SA4119
4-Nitrophenol	<46,000ug/kg dw		03/10/04				SA4119
Dibenzofuran	<4600ug/kg dw		03/10/04				SA4119
2,4-Dinitrotoluene	<4600ug/kg dw		03/10/04				SA4119
Diethylphthalate	<4600ug/kg dw		03/10/04				SA4119
4-Chlorophenylphenylether	<4600ug/kg dw		03/10/04				SA4119
Fluorene	<4600ug/kg dw		03/10/04				SA4119
4-Nitroaniline	<46,000ug/kg dw		03/10/04				SA4119
2-Methyl-4,6-dinitrophenol	<46,000ug/kg dw		03/10/04				SA4119
n-Nitrosodiphenylamine	<4600ug/kg dw		03/10/04				SA4119
4-Bromophenylphenylether	<4600ug/kg dw		03/10/04				SA4119
Hexachlorobenzene	<4600ug/kg dw		03/10/04				SA4119
Fentachlorophenol	<9100ug/kg dw		03/10/04				SA4119
Phenanthrene	530ug/kg d		03/10/04				SA4119
Anthracene	<4600ug/kg dw		03/10/04				SA4119
Carbazole	<4600ug/kg dw		03/10/04				SA4119
Di-n-butylphthalate	16,000ug/kg dw		03/10/04				SA4119
Fluoranthene	660ug/kg dw		03/10/04				SA4119
Pyrene	1100ug/kg dw		03/10/04				SA4119
Butylbenzylphthalate	<4600ug/kg dw		03/10/04				SA4119
3,3'-Dichlorobenzidine	<4600ug/kg dw		03/10/04				SA4119
Benzo(a)anthracene	500ug/kg dw		03/10/04				SA4119
Chrysene	560ug/kg dw		03/10/04				SA4119
bis(2-Ethylhexyl)phthalate	1700ug/kg dw		03/10/04				SA4119
Di-n-octylphthalate	<4600ug/kg dw		03/10/04				SA4119
Benzo(b)fluoranthene	930ug/kg dw		03/10/04				SA4119
Benzo(k)fluoranthene	<4600ug/kg dw		03/10/04				SA4119
Benzo(a)pyrene	<4600ug/kg dw		03/10/04				SA4119
Indeno(1,2,3-cd)pyrene	<4600ug/kg dw		03/10/04				SA4119
Dibenzo(a,h)anthracene	<4600ug/kg dw		03/10/04				SA4119
Benzo(ghi)perylene	<4600ug/kg dw		03/10/04				SA4119

ID:06204011 Mat:Soil 0333/BCI PHASE 2 SB35(4'-10') 03/01/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Percent Solids	83%		03/03/04				WK7216
Total Arsenic by Low Level	2.5mg/kg dw		03/05/04				MB6117
Total Barium	66mg/kg dw		03/05/04				MB6116
Total Cadmium	2.2mg/kg dw		03/05/04				MB6116
Total Chromium	16mg/kg dw		03/05/04				MB6116
Total Lead	<12mg/kg dw		03/05/04				MB6116
Total Mercury	<0.25mg/kg dw		03/07/04				MB6118
Total Selenium by Low Level	<0.61mg/kg dw		03/05/04				MB6117

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204011 Mat:Soil 0333/BCI PHASE 2 SB35(4'-10') 03/01/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Total Silver	46ug/kg dw		03/05/04				KB6116
TCL Volatiles by EPA Method 8260							
Chloromethane	<30,000ug/kg dw		03/04/04		5		VM4803
Bromomethane	<30,000ug/kg dw		03/04/04		5		VM4803
Vinyl Chloride	<20,000ug/kg dw		03/04/04		5		VM4803
Chloroethane	<30,000ug/kg dw		03/04/04		5		VM4803
Methylene Chloride	<30,000ug/kg dw		03/04/04		5		VM4803
Acetone	<100,000ug/kg d		03/04/04		5		VM4803
Carbon Disulfide	<30,000ug/kg dw		03/04/04		5		VM4803
1,1-Dichloroethane	<30,000ug/kg dw		03/04/04		5		VM4803
1,1-Dichloroethane	<30,000ug/kg dw		03/04/04		5		VM4803
trans-1,2-Dichloroethane	<30,000ug/kg dw		03/04/04		5		VM4803
cis-1,2-Dichloroethane	<30,000ug/kg dw		03/04/04		5		VM4803
Chloroform	<30,000ug/kg dw		03/04/04		5		VM4803
1,2-Dichloroethane	<30,000ug/kg dw		03/04/04		5		VM4803
2-Butanone	<100,000ug/kg d		03/04/04		5		VM4803
1,1,1-Trichloroethane	<30,000ug/kg dw		03/04/04		5		VM4803
Carbon Tetrachloride	<30,000ug/kg dw		03/04/04		5		VM4803
Bromo-dichloromethane	<30,000ug/kg dw		03/04/04		5		VM4803
1,2-Dichloropropane	<30,000ug/kg dw		03/04/04		5		VM4803
cis-1,3-Dichloropropane	<30,000ug/kg dw		03/04/04		5		VM4803
Trichloroethane	250,000ug/kg dw		03/04/04				VM4803
Dibromochloromethane	<30,000ug/kg dw		03/04/04		5		VM4803
1,1,2-Trichloroethane	<30,000ug/kg dw		03/04/04		5		VM4803
Benzene	<30,000ug/kg dw		03/04/04		5		VM4803
trans-1,3-Dichloropropane	<30,000ug/kg dw		03/04/04		5		VM4803
Bromoform	<30,000ug/kg dw		03/04/04		5		VM4803
4-Methyl-2-pentanone	<100,000ug/kg d		03/04/04		5		VM4803
2-Hexanone	<100,000ug/kg d		03/04/04		5		VM4803
Tetrachloroethane	<30,000ug/kg dw		03/04/04		5		VM4803
1,1,1,2-Tetrachloroethane	<30,000ug/kg dw		03/04/04		5		VM4803
Toluene	<30,000ug/kg dw		03/04/04		5		VM4803
Chlorobenzene	<30,000ug/kg dw		03/04/04		5		VM4803
Ethylbenzene	<30,000ug/kg dw		03/04/04		5		VM4803
Styrene	<30,000ug/kg dw		03/04/04		5		VM4803
m,p-Xylene	<30,000ug/kg dw		03/04/04		5		VM4803
o-Xylene	<30,000ug/kg dw		03/04/04		5		VM4803

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204012 Mat:Soil 0333/BCI PHASE 2 SB36(8'-9') 03/01/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL. KEY	KEY	FILE#
Percent Solids	82%		03/03/04			WE7216

TCL Semivolatiles by EPA Method 8270

Phenol	<410ug/kg dw		03/09/04			SA4119
bis(2-Chloroethyl)ether	<410ug/kg dw		03/09/04			SA4119
2-Chlorophenol	<410ug/kg dw		03/09/04			SA4119
1,3-Dichlorobenzene	<410ug/kg dw		03/09/04			SA4119
1,4-Dichlorobenzene	<410ug/kg dw		03/09/04			SA4119
1,2-Dichlorobenzene	<410ug/kg dw		03/09/04			SA4119
2-Methylphenol	<410ug/kg dw		03/09/04			SA4119
2,2'-Oxybis(1-Chloropropane)	<410ug/kg dw		03/09/04			SA4119
4-Methylphenol	<410ug/kg dw		03/09/04			SA4119
n-Nitrosodimpropylamine	<410ug/kg dw		03/09/04			SA4119
Hexachloroethane	<410ug/kg dw		03/09/04			SA4119
Nitrobenzene	<410ug/kg dw		03/09/04			SA4119
Isophorone	<410ug/kg dw		03/09/04			SA4119
2-Nitrophenol	<410ug/kg dw		03/09/04			SA4119
2,4-Dimethylphenol	<410ug/kg dw		03/09/04			SA4119
bis(2-Chloroethoxy)methane	<410ug/kg dw		03/09/04			SA4119
2,4-Dichlorophenol	<410ug/kg dw		03/09/04			SA4119
1,2,4-Trichlorobenzene	<410ug/kg dw		03/09/04			SA4119
Naphthalene	<410ug/kg dw		03/09/04			SA4119
4-Chloroaniline	<410ug/kg dw		03/09/04			SA4119
Hexachlorobutadiene	<410ug/kg dw		03/09/04			SA4119
4-Chloro-3-methylphenol	<410ug/kg dw		03/09/04			SA4119
2-Methylnaphthalene	<410ug/kg dw		03/09/04			SA4119
Hexachlorocyclopentadiene	<410ug/kg dw		03/09/04			SA4119
2,4,6-Trichlorophenol	<410ug/kg dw		03/09/04			SA4119
2,4,5-Trichlorophenol	<410ug/kg dw		03/09/04			SA4119
2-Chloronaphthalene	<410ug/kg dw		03/09/04			SA4119
2-Nitroaniline	<4100ug/kg dw		03/09/04			SA4119
Dimethylphthalate	<410ug/kg dw		03/09/04			SA4119
Acenaphthylene	<410ug/kg dw		03/09/04			SA4119
2,6-Dinitrotoluene	<410ug/kg dw		03/09/04			SA4119
3-Nitroaniline	<4100ug/kg dw		03/09/04			SA4119
Acenaphthene	<410ug/kg dw		03/09/04			SA4119
2,4-Dinitrophenol	<4100ug/kg dw		03/09/04			SA4119
4-Nitrophenol	<4100ug/kg dw		03/09/04			SA4119
Dibenzofuran	430ug/kg dw		03/09/04			SA4119
2,4-Dinitrotoluene	<410ug/kg dw		03/09/04			SA4119
Diethylphthalate	<410ug/kg dw		03/09/04			SA4119
4-Chlorophenylphenylether	<410ug/kg dw		03/09/04			SA4119
Fluorene	480ug/kg dw		03/09/04			SA4119
4-Nitroaniline	<4100ug/kg dw		03/09/04			SA4119

dw = Dry weight:

DATE: / /

Upstate Laboratories, Inc.  
 Analysis Results  
 Report Number: 06204001  
 Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
 QC: \_\_\_\_\_  
 Lab I.D.: 10170  
 Sampled by: Client

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 ID:06204012 Mat:Soil 0333/BCI PHASE 2 SB36(8'-9') 03/01/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FIG#
2-Methyl-4,6-dinitrophenol	<4100ug/kg dw		03/09/04				SA4119
n-Nitrosodiphenylamine	<410ug/kg dw		03/09/04				SA4119
4-Bromophenylphenylether	<410ug/kg dw		03/09/04				SA4119
Hexachlorobenzene	<410ug/kg dw		03/09/04				SA4119
Pentachlorophenol	<810ug/kg dw		03/09/04				SA4119
Phenanthrene	2700ug/kg dw		03/09/04				SA4119
Anthracene	590ug/kg dw		03/09/04				SA4119
Carbazole	<410ug/kg dw		03/09/04				SA4119
Di-n-butylphthalate	<410ug/kg dw		03/09/04				SA4119
Fluoranthene	2300ug/kg dw		03/09/04				SA4119
Pyrene	1800ug/kg dw		03/09/04				SA4119
Butylbenzylphthalate	<410ug/kg dw		03/09/04				SA4119
2,3'-Dichlorobenzidine	<410ug/kg dw		03/09/04				SA4119
Benzo(a)anthracene	890ug/kg dw		03/09/04				SA4119
Chrysene	750ug/kg dw		03/09/04				SA4119
bis(2-Ethylhexyl)phthalate	<410ug/kg dw		03/09/04				SA4119
Di-n-octylphthalate	<410ug/kg dw		03/09/04				SA4119
Benzo(b)fluoranthene	930ug/kg dw		03/09/04				SA4119
Benzo(k)fluoranthene	<410ug/kg dw		03/09/04				SA4119
Benzo(a)pyrene	630ug/kg dw		03/09/04				SA4119
Indeno(1,2,3-cd)pyrene	<410ug/kg dw		03/09/04				SA4119
Dibenzo(a,h)anthracene	<410ug/kg dw		03/09/04				SA4119
Benzo(ghi)perylene	<410ug/kg dw		03/09/04				SA4119

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 ID:06204013 Mat:Soil 0333/BCI PHASE 2 SB37(4'-5.5') 03/01/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FIG#
Percent Solids	87%		03/03/04				ME7216
Total Arsenic by Low Level	<1.2ug/kg dw		03/05/04				MS6117
Total Barium	59ug/kg dw		03/05/04				MS6116
Total Cadmium	2.1ug/kg dw		03/05/04				MS6116
Total Chromium	14ug/kg dw		03/05/04				MS6116
Total Lead	<11ug/kg dw		03/05/04				MS6116
Total Mercury	<0.23ug/kg dw		03/07/04				MS6118
Total Selenium by Low Level	<0.58ug/kg dw		03/05/04				MS6117
Total Silver	<5.7ug/kg dw		03/05/04				MS6116
TCL Volatiles by EPA Method 8260							
Chloromethane	<290ug/kg dw		03/04/04		5		VM4803
Bromomethane	<290ug/kg dw		03/04/04		5		VM4803
vinyl Chloride	<190ug/kg dw		03/04/04		5		VM4803
Chloroethane	<290ug/kg dw		03/04/04		5		VM4803
Methylene Chloride	<290ug/kg dw		03/04/04		5		VM4803

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06204013 Mat:Soil 0333/BCI PHASE 2 SB37(4'-5.5') 03/01/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Acetone	<960ug/kg dw		03/04/04		5		VM4803
Carbon Disulfide	<290ug/kg dw		03/04/04		5		VM4803
1,1-Dichloroethane	<290ug/kg dw		03/04/04		5		VM4803
1,1-Dichloroethane	<290ug/kg dw		03/04/04		5		VM4803
trans-1,2-Dichloroethane	<290ug/kg dw		03/04/04		5		VM4803
cis-1,2-Dichloroethane	<290ug/kg dw		03/04/04		5		VM4803
Chloroform	<290ug/kg dw		03/04/04		5		VM4803
1,2-Dichloroethane	<290ug/kg dw		03/04/04		5		VM4803
2-Butanone	<960ug/kg dw		03/04/04		5		VM4803
1,1,1-Trichloroethane	<290ug/kg dw		03/04/04		5		VM4803
Carbon Tetrachloride	<290ug/kg dw		03/04/04		5		VM4803
Bromodichloromethane	<290ug/kg dw		03/04/04		5		VM4803
1,2-Dichloropropane	<290ug/kg dw		03/04/04		5		VM4803
cis-1,3-Dichloropropene	<290ug/kg dw		03/04/04		5		VM4803
Trichloroethane	620ug/kg dw		03/04/04				VM4803
Dibromochloromethane	<290ug/kg dw		03/04/04		5		VM4803
1,1,2-Trichloroethane	<290ug/kg dw		03/04/04		5		VM4803
Benzene	<290ug/kg dw		03/04/04		5		VM4803
trans-1,3-Dichloropropene	<290ug/kg dw		03/04/04		5		VM4803
Bromoform	<290ug/kg dw		03/04/04		5		VM4803
4-Methyl-2-pentanone	<960ug/kg dw		03/04/04		5		VM4803
2-Hexanone	<960ug/kg dw		03/04/04		5		VM4803
Tetrachloroethane	<290ug/kg dw		03/04/04		5		VM4803
1,1,2,2-Tetrachloroethane	<290ug/kg dw		03/04/04		5		VM4803
Toluene	<290ug/kg dw		03/04/04		5		VM4803
Chlorobenzene	<290ug/kg dw		03/04/04		5		VM4803
Ethylbenzene	<290ug/kg dw		03/04/04		5		VM4803
Styrene	<290ug/kg dw		03/04/04		5		VM4803
m,p-Xylene	<290ug/kg dw		03/04/04		5		VM4803
o-Xylene	<290ug/kg dw		03/04/04		5		VM4803

ID:06204014 Mat:Soil 0333/BCI PHASE 2 SB39(8'-8.5') 03/01/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Percent Solids	85%		03/03/04				WE7216
Total Arsenic by Low Level	<1.2ug/kg dw		03/05/04				MB6117
Total Barium	37ug/kg dw		03/05/04				MB6116
Total Cadmium	1.5ug/kg dw		03/05/04				MB6116
Total Chromium	10.0ug/kg dw		03/05/04				MB6116
Total Lead	29ug/kg dw		03/05/04				MB6116
Total Mercury	<0.25ug/kg dw		03/07/04				MB6118
Total Selenium by Low Level	<0.59ug/kg dw		03/05/04				MB6117
Total Silver	<5.9ug/kg dw		03/05/04				MB6116

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06204001  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_ Lab I.D.: 10170  
Sampled by: Client

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ID:06204014 Mat:Soil 0333/BCI PHASE 2 SB39(8'-8.5') 03/01/04 C  
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PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
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ID:06204015 Mat:Soil 0333/BCI PHASE 2 SB40(0'-4') 03/01/04 C  
-----

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Percent Solids	84%		03/03/04				WF7216
Total Cadmium	3.3mg/kg dw		03/05/04				MB6116
Total Lead	110mg/kg dw		03/05/04				MB6116

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ID:06204016 Mat:Soil 0333/BCI PHASE 2 SB41(0'-6') 03/01/04 C  
-----

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Percent Solids	89%		03/03/04				WF7216
Total Cadmium	1.6mg/kg dw		03/05/04				MB6116
Total Lead	<11mg/kg dw		03/05/04				MB6116

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ID:06204017 Mat:Soil 0333/BCI PHASE 2 SB42(0'-8') 03/01/04 C  
-----

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Percent Solids	79%		03/03/04				WF7216
Total Cadmium	2.5mg/kg dw		03/05/04				MB6116
Total Lead	200mg/kg dw		03/05/04				MB6116

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06504043  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06504043 Mat:Soil PCI PHASE II/0333 ISB2(4'-8') 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL. KEY	KEY	FILE#
Percent Solids	85%		03/08/04			ME7351
Total Arsenic by Low Level	12mg/kg dw		03/08/04			ME6120
Total Barium	82mg/kg dw		03/08/04			ME6119
Total Cadmium	1.7mg/kg dw		03/08/04			ME6119
Total Chromium	11mg/kg dw		03/08/04			ME6119
Total Lead	92mg/kg dw		03/08/04			ME6119
Total Mercury	0.48mg/kg dw		03/07/04			ME6119
Total Selenium by Low Level	<0.59mg/kg dw		03/08/04			ME6120
Total Silver	<3.8mg/kg dw		03/08/04			ME6119

TCL Volatiles by EPA Method #260

Chloromethane	<4ug/kg dw		03/08/04			VM4805
Bromomethane	<4ug/kg dw		03/08/04			VM4805
Vinyl Chloride	<2ug/kg dw		03/08/04			VM4805
Chloroethane	<4ug/kg dw		03/08/04			VM4805
Methylene Chloride	9ug/kg dw		03/08/04		11	VM4805
Acetone	<12ug/kg dw		03/08/04			VM4805
Carbon Disulfide	<4ug/kg dw		03/08/04			VM4805
1,1-Dichloroethane	<4ug/kg dw		03/08/04			VM4805
1,1-Dichloroethane	<4ug/kg dw		03/08/04			VM4805
trans-1,2-Dichloroethane	<4ug/kg dw		03/08/04			VM4805
cis-1,2-Dichloroethane	<4ug/kg dw		03/08/04			VM4805
Chloroform	<4ug/kg dw		03/08/04			VM4805
1,2-Dichloroethane	<4ug/kg dw		03/08/04			VM4805
2-Butanone	<12ug/kg dw		03/08/04			VM4805
1,1,1-Trichloroethane	<4ug/kg dw		03/08/04			VM4805
Carbon Tetrachloride	<4ug/kg dw		03/08/04			VM4805
Bromodichloromethane	<4ug/kg dw		03/08/04			VM4805
1,2-Dichloropropane	<4ug/kg dw		03/08/04			VM4805
cis-1,3-Dichloropropane	<4ug/kg dw		03/08/04			VM4805
Trichloroethene	<4ug/kg dw		03/08/04			VM4805
Dibromochloromethane	<4ug/kg dw		03/08/04			VM4805
1,1,2-Trichloroethane	<4ug/kg dw		03/08/04			VM4805
Benzene	<4ug/kg dw		03/08/04			VM4805
trans-1,3-Dichloropropane	<4ug/kg dw		03/08/04			VM4805
Bromoform	<4ug/kg dw		03/08/04			VM4805
4-Methyl-2-pentanone	<12ug/kg dw		03/08/04			VM4805
2-Hexanone	<12ug/kg dw		03/08/04			VM4805
Tetrachloroethene	<4ug/kg dw		03/08/04			VM4805
1,1,2,2-Tetrachloroethane	<4ug/kg dw		03/08/04			VM4805
Toluene	<4ug/kg dw		03/08/04			VM4805
Chlorobenzene	<4ug/kg dw		03/08/04			VM4805
Ethylbenzene	<4ug/kg dw		03/08/04			VM4805
Styrene	<4ug/kg dw		03/08/04			VM4805

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06504043  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

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ID:06504043 Mat:Soil BCI PHASE II/0333 ISB2(4'-8') 03/03/04 c  
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PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
m,p-Xylene	<4ug/kg dw		03/08/04				VM4805
o-Xylene	<4ug/kg dw		03/08/04				VM4805
VCL Semivolatiles by EPA Method 8270							
Phenol	<390ug/kg dw		03/08/04				SA4119
bis(2-Chloroethyl)ether	<390ug/kg dw		03/08/04				SA4119
2-Chlorophenol	<390ug/kg dw		03/08/04				SA4119
1,3-Dichlorobenzene	<390ug/kg dw		03/08/04				SA4119
1,4-Dichlorobenzene	<390ug/kg dw		03/08/04				SA4119
1,2-Dichlorobenzene	<390ug/kg dw		03/08/04				SA4119
2-Methylphenol	<390ug/kg dw		03/08/04				SA4119
2,2'-Oxybis (1-Chloropropane)	<390ug/kg dw		03/08/04				SA4119
4-Methylphenol	<390ug/kg dw		03/08/04				SA4119
n-Nitrosodipropylamine	<390ug/kg dw		03/08/04				SA4119
Hexachloroethane	<390ug/kg dw		03/08/04				SA4119
Nitrobenzene	<390ug/kg dw		03/08/04				SA4119
Isophorone	<390ug/kg dw		03/08/04				SA4119
2-Nitrophenol	<390ug/kg dw		03/08/04				SA4119
2,4-Dimethylphenol	<390ug/kg dw		03/08/04				SA4119
bis (2-Chloroethoxy)methane	<390ug/kg dw		03/08/04				SA4119
2,4-Dichlorophenol	<390ug/kg dw		03/08/04				SA4119
1,2,4-Trichlorobenzene	<390ug/kg dw		03/08/04				SA4119
Naphthalene	<390ug/kg dw		03/08/04				SA4119
4-Chloroaniline	<390ug/kg dw		03/08/04				SA4119
Hexachlorobutadiene	<390ug/kg dw		03/08/04				SA4119
4-Chloro-3-methylphenol	<390ug/kg dw		03/08/04				SA4119
2-Methylnaphthalene	<390ug/kg dw		03/08/04				SA4119
Hexachlorocyclopentadiene	<390ug/kg dw		03/08/04				SA4119
2,4,6-Trichlorophenol	<390ug/kg dw		03/08/04				SA4119
2,4,5-Trichlorophenol	<390ug/kg dw		03/08/04				SA4119
3-Chloronaphthalene	<390ug/kg dw		03/08/04				SA4119
2-Nitroaniline	<3900ug/kg dw		03/08/04				SA4119
Dimethylphthalate	<390ug/kg dw		03/08/04				SA4119
Acenaphthylene	<390ug/kg dw		03/08/04				SA4119
2,6-Dinitrotoluene	<390ug/kg dw		03/08/04				SA4119
3-Nitroaniline	<3900ug/kg dw		03/08/04				SA4119
Acenaphthene	<390ug/kg dw		03/08/04				SA4119
2,4-Dinitrophenol	<3900ug/kg dw		03/08/04				SA4119
4-Nitrophenol	<3900ug/kg dw		03/08/04				SA4119
Dibenzofuran	<390ug/kg dw		03/08/04				SA4119
2,4-Dinitrotoluene	<390ug/kg dw		03/08/04				SA4119
Diethylphthalate	<390ug/kg dw		03/08/04				SA4119
4-Chlorophenylphenylether	<390ug/kg dw		03/08/04				SA4119
Fluorene	<390ug/kg dw		03/08/04				SA4119

dw = Dry weight



DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06504043  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

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ID:06504043 Mat:Soil BCI PHASE II/0333 ISB2(4'-8') 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
4-Nitroaniline	<3900ug/kg dw		03/08/04				SA4119
2-Methyl-4,6-dinitrophenol	<3900ug/kg dw		03/08/04				SA4119
n-Nitrosodiphenylamine	<390ug/kg dw		03/08/04				SA4119
4-Bromophenylphenyl ether	<390ug/kg dw		03/08/04				SA4119
Hexachlorobenzene	<390ug/kg dw		03/08/04				SA4119
Pentachlorophenol	<780ug/kg dw		03/08/04				SA4119
Phenanthrene	<390ug/kg dw		03/08/04				SA4119
Anthracene	<390ug/kg dw		03/08/04				SA4119
Carbazole	<390ug/kg dw		03/08/04				SA4119
Di-n-butylphthalate	<390ug/kg dw		03/08/04				SA4119
Fluoranthene	<390ug/kg dw		03/08/04				SA4119
Pyrene	<390ug/kg dw		03/08/04				SA4119
Butylbenzylphthalate	<390ug/kg dw		03/08/04				SA4119
3,3'-Dichlorobenzidine	<390ug/kg dw		03/08/04				SA4119
Benzo(a)anthracene	<390ug/kg dw		03/08/04				SA4119
Chrysene	<390ug/kg dw		03/08/04				SA4119
bis(2-Ethylhexyl)phthalate	<390ug/kg dw		03/08/04				SA4119
Di-n-octylphthalate	<390ug/kg dw		03/08/04				SA4119
Benzo(k)fluoranthene	<390ug/kg dw		03/08/04				SA4119
Benzo(k)fluoranthene	<390ug/kg dw		03/08/04				SA4119
Benzo(a)pyrene	<390ug/kg dw		03/08/04				SA4119
Indeno(1,2,3-cd)pyrene	<390ug/kg dw		03/08/04				SA4119
Dibenzo(a,h)anthracene	<390ug/kg dw		03/08/04				SA4119
Benzo(ghi)perylene	<390ug/kg dw		03/08/04				SA4119

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ID:06504044 Mat:Soil BCI PHASE II/0333 ISB3(0'-8') 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Percent Solids	82%		03/09/04				MR7251
Total Cadmium	4.5mg/kg dw		03/08/04				MB6119
Total Lead	10000mg/kg dw		03/08/04				MB6119

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ID:06504045 Mat:Soil BCI PHASE II/0333 ISB4(0'-4') 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Percent Solids	90%		03/09/04				MR7251
Total Cadmium	3.0mg/kg dw		03/08/04				MB6119
Total Lead	46mg/kg dw		03/08/04				MB6119

dw = Dry weight:

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06504043  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

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ID:06504046 Mat:Soil BCI PHASE II/0333 ISB5(0'-8') 03/03/04 C  
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PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Percent Solids	89%		03/09/04				WK7251
Total Cadmium	1.6mg/kg dw		03/08/04				NR6119
Total Lead	<11mg/kg dw		03/08/04				NR6119

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ID:06504047 Mat:Soil BCI PHASE II/0333 ISB6(0'-8') 03/03/04 C  
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PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Percent Solids	84%		03/09/04				WK7251
Total Arsenic by Low Level	8.2mg/kg dw		03/08/04				NR6120
Total Barium	83mg/kg dw		03/08/04				NR6119
Total Cadmium	2.8mg/kg dw		03/08/04				NR6119
Total Chromium	25mg/kg dw		03/08/04				NR6119
Total Lead	13mg/kg dw		03/08/04				NR6119
Total Mercury	<0.24mg/kg dw		03/07/04				NR6118
Total Selenium by Low Level	<0.59mg/kg dw		03/08/04				NR6120
Total Silver	<5.8mg/kg dw		03/08/04				NR6219

TCL Volatiles by EPA Method 8260

Chloromethane	<3ug/kg dw		03/08/04				VN4805
Bromomethane	<3ug/kg dw		03/08/04				VN4805
Vinyl Chloride	<3ug/kg dw		03/08/04				VN4805
Chloroethane	<3ug/kg dw		03/08/04				VN4805
Methylene Chloride	8ug/kg dw		03/08/04		11		VN4805
Acetone	<12ug/kg dw		03/08/04				VN4805
Carbon Disulfide	<3ug/kg dw		03/08/04				VN4805
1,1-Dichloroethane	<3ug/kg dw		03/08/04				VN4805
1,1-Dichloroethane	<3ug/kg dw		03/08/04				VN4805
trans-1,2-Dichloroethane	<3ug/kg dw		03/08/04				VN4805
cis-1,2-Dichloroethane	<3ug/kg dw		03/08/04				VN4805
Chloroform	<3ug/kg dw		03/08/04				VN4805
1,2-Dichloroethane	<3ug/kg dw		03/08/04				VN4805
2-Butanone	<12ug/kg dw		03/08/04				VN4805
1,1,1-Trichloroethane	<3ug/kg dw		03/08/04				VN4805
Carbon Tetrachloride	<3ug/kg dw		03/08/04				VN4805
Bromodichloromethane	<3ug/kg dw		03/08/04				VN4805
1,2-Dichloropropane	<3ug/kg dw		03/08/04				VN4805
cis-1,3-Dichloropropene	<3ug/kg dw		03/08/04				VN4805
Trichloroethene	<3ug/kg dw		03/08/04				VN4805
Dibromochloromethane	<3ug/kg dw		03/08/04				VN4805
1,1,2-Trichloroethane	<3ug/kg dw		03/08/04				VN4805
Hexane	<3ug/kg dw		03/08/04				VN4805
trans-1,3-Dichloropropene	<3ug/kg dw		03/08/04				VN4805
Bromoform	<3ug/kg dw		03/08/04				VN4805

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06504043  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06504047 Mat:Soil BCI PHASE II/0333 ISB6(01-81) 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE ANAL.	KY1	KY2	FILES#
t-Methyl-2-pentanone	<12ug/kg dw		03/08/04			VM4805
2-Hexanone	<12ug/kg dw		03/08/04			VM4805
Tetrachloroethene	<3ug/kg dw		03/08/04			VM4805
1,1,2,2-Tetrachloroethane	<3ug/kg dw		03/08/04			VM4805
Toluene	<3ug/kg dw		03/08/04			VM4805
Chlorobenzene	<3ug/kg dw		03/08/04			VM4805
Ethylbenzene	<3ug/kg dw		03/08/04			VM4805
Styrene	<3ug/kg dw		03/08/04			VM4805
m,p-Xylene	<3ug/kg dw		03/08/04			VM4805
o-Xylene	<3ug/kg dw		03/08/04			VM4805

TCL Semivolatiles by EPA Method 8270

Phenol	<390ug/kg dw		03/08/04			SA4119
bis(2-Chloroethyl)ether	<390ug/kg dw		03/08/04			SA4119
2-Chlorophenol	<390ug/kg dw		03/08/04			SA4119
1,3-Dichlorobenzene	<390ug/kg dw		03/08/04			SA4119
1,4-Dichlorobenzene	<390ug/kg dw		03/08/04			SA4119
1,2-Dichlorobenzene	<390ug/kg dw		03/08/04			SA4119
2-Methylphenol	<390ug/kg dw		03/08/04			SA4119
2,2'-Oxybis(1-Chloropropane)	<390ug/kg dw		03/08/04			SA4119
4-Methylphenol	<390ug/kg dw		03/08/04			SA4119
n-Nitrosodipropylamine	<390ug/kg dw		03/08/04			SA4119
Hexachloroethane	<390ug/kg dw		03/08/04			SA4119
Nitrobenzene	<390ug/kg dw		03/08/04			SA4119
Isophorone	<390ug/kg dw		03/08/04			SA4119
2-Nitrophenol	<390ug/kg dw		03/08/04			SA4119
2,4-Dimethylphenol	<390ug/kg dw		03/08/04			SA4119
bis(2-Chloroethoxy)methane	<390ug/kg dw		03/08/04			SA4119
2,4-Dichlorophenol	<390ug/kg dw		03/08/04			SA4119
1,2,4-Trichlorobenzene	<390ug/kg dw		03/08/04			SA4119
Naphthalene	<390ug/kg dw		03/08/04			SA4119
4-Chloroaniline	<390ug/kg dw		03/08/04			SA4119
Hexachlorobutadiene	<390ug/kg dw		03/08/04			SA4119
4-Chloro-3-methylphenol	<390ug/kg dw		03/08/04			SA4119
2-Methylnaphthalene	<390ug/kg dw		03/08/04			SA4119
Hexachlorocyclopentadiene	<390ug/kg dw		03/08/04			SA4119
2,4,6-Trichlorophenol	<390ug/kg dw		03/08/04			SA4119
2,4,5-Trichlorophenol	<390ug/kg dw		03/08/04			SA4119
2-Chloronaphthalene	<390ug/kg dw		03/08/04			SA4119
2-Nitroaniline	<390ug/kg dw		03/08/04			SA4119
Dimethylphthalate	<390ug/kg dw		03/08/04			SA4119
Acenaphthylene	<390ug/kg dw		03/08/04			SA4119
2,6-Dinitrotoluene	<390ug/kg dw		03/08/04			SA4119
3-Nitroaniline	<390ug/kg dw		03/08/04			SA4119

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
 Analysis Results  
 Report Number: 06504043  
 Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
 QC: \_\_\_\_\_  
 Lab I.D.: 10170  
 Sampled by: Client

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 ID:06504047 Mat:Soil BCI PHASE II/0333 ISB6(0'-8') 03/03/04 C  
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PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Acenaphthene	<390ug/kg dw		03/08/04				SA4119
2,4-Dinitrophenol	<390ug/kg dw		03/08/04				SA4119
4-Nitrophenol	<390ug/kg dw		03/08/04				SA4119
Dibenzofuran	<390ug/kg dw		03/08/04				SA4119
2,4-Dinitrotoluene	<390ug/kg dw		03/08/04				SA4119
Diethylphthalate	<390ug/kg dw		03/08/04				SA4119
4-Chlorophenylphenylether	<390ug/kg dw		03/08/04				SA4119
Fluorene	<390ug/kg dw		03/08/04				SA4119
4-Nitroaniline	<390ug/kg dw		03/08/04				SA4119
2-Methyl-4,6-dinitrophenol	<390ug/kg dw		03/08/04				SA4119
n-Nitrosodiphenylamine	<390ug/kg dw		03/08/04				SA4119
4-Bromophenylphenylether	<390ug/kg dw		03/08/04				SA4119
Hexachlorobenzene	<390ug/kg dw		03/08/04				SA4119
Pentachlorophenol	<780ug/kg dw		03/08/04				SA4119
Phenanthrene	<390ug/kg dw		03/08/04				SA4119
Anthracene	<390ug/kg dw		03/08/04				SA4119
Carbazole	<390ug/kg dw		03/08/04				SA4119
Di-n-butylphthalate	<390ug/kg dw		03/08/04				SA4119
Fluoranthene	<390ug/kg dw		03/08/04				SA4119
Pyrene	<390ug/kg dw		03/08/04				SA4119
Butylbenzylphthalate	<390ug/kg dw		03/08/04				SA4119
3,3'-Dichlorobenzidine	<390ug/kg dw		03/08/04				SA4119
Benzo(a)anthracene	<390ug/kg dw		03/08/04				SA4119
Chrysene	<390ug/kg dw		03/08/04				SA4119
bis(2-Ethylhexyl)phthalate	<390ug/kg dw		03/08/04				SA4119
Di-n-octylphthalate	<390ug/kg dw		03/08/04				SA4119
Benzo(b)fluoranthene	<390ug/kg dw		03/08/04				SA4119
Benzo(k)fluoranthene	<390ug/kg dw		03/08/04				SA4119
Benzo(a)pyrene	<390ug/kg dw		03/08/04				SA4119
Indeno(1,2,3-cd)pyrene	<390ug/kg dw		03/08/04				SA4119
Dibenzo(a,b)anthracene	<390ug/kg dw		03/08/04				SA4119
Benzo(ghi)perylene	<390ug/kg dw		03/08/04				SA4119

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 ID:06504048 Mat:Soil BCI PHASE II/0333 ISB7(4'-8') & ISB8(7'-10') 03/03/04 C  
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PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Percent Solids	88%		03/09/04				WE7251
Total Arsenic by Low Level	<1.2ug/kg dw		03/08/04				MS6119
Total Barium	68ug/kg dw		03/08/04				MS6119
Total Cadmium	1.8ug/kg dw		03/08/04				MS6119
Total Chromium	16ug/kg dw		03/08/04				MS6119
Total Lead	<11ug/kg dw		03/08/04				MS6119
Total Mercury	<0.23ug/kg dw		03/07/04				MS6119

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
 Analysis Results  
 Report Number: 06504043  
 Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
 QC: \_\_\_\_\_ Lab I.D.: 10170  
 Sampled by: Client

ID:06504048 Mat:Soil BCI PHASE II/0333 ISB7(4'-8') & ISB8(7'-10') 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE ANAL.	EXT	EXT	FILES
Total Selenium by Low Level	<0.6ug/kg dw		03/08/04			MS6120
Total Silver	5.7ug/kg dw		03/08/04			MS6119

TCL Volatiles by EPA Method 8260

Chloromethane	<3ug/kg dw		03/08/04			VM4805
Bromomethane	<3ug/kg dw		03/08/04			VM4805
Vinyl Chloride	<2ug/kg dw		03/08/04			VM4805
Chloroethane	<3ug/kg dw		03/08/04			VM4805
Methylene Chloride	7ug/kg dw		03/08/04	11		VM4805
Acetone	<11ug/kg dw		03/08/04			VM4805
Carbon Disulfide	<3ug/kg dw		03/08/04			VM4805
1,1-Dichloroethene	<3ug/kg dw		03/08/04			VM4805
1,1-Dichloroethane	<3ug/kg dw		03/08/04			VM4805
trans-1,2-Dichloroethane	<3ug/kg dw		03/08/04			VM4805
cis-1,2-Dichloroethane	14ug/kg dw		03/08/04			VM4805
Chloroform	<3ug/kg dw		03/08/04			VM4805
1,2-Dichloroethane	<3ug/kg dw		03/08/04			VM4805
2-Butanone	<11ug/kg dw		03/08/04			VM4805
1,1,1-Trichloroethane	<3ug/kg dw		03/08/04			VM4805
Carbon Tetrachloride	<3ug/kg dw		03/08/04			VM4805
Bromodichloromethane	<3ug/kg dw		03/08/04			VM4805
1,2-Dichloropropane	<3ug/kg dw		03/08/04			VM4805
cis-1,3-Dichloropropane	<3ug/kg dw		03/08/04			VM4805
Trichloroethene	130ug/kg dw		03/08/04			VM4805
Dibromochloromethane	<3ug/kg dw		03/08/04			VM4805
1,1,2-Trichloroethane	<3ug/kg dw		03/08/04			VM4805
Benzene	<3ug/kg dw		03/08/04			VM4805
trans-1,3-Dichloropropane	<3ug/kg dw		03/08/04			VM4805
Bromoform	<3ug/kg dw		03/08/04			VM4805
4-Methyl-2-pentanone	<11ug/kg dw		03/08/04			VM4805
2-Hexanone	<11ug/kg dw		03/08/04			VM4805
Tetrachloroethene	3ug/kg dw		03/08/04			VM4805
1,1,2,2-Tetrachloroethane	<3ug/kg dw		03/08/04			VM4805
Toluene	<3ug/kg dw		03/08/04			VM4805
Chlorobenzene	<3ug/kg dw		03/08/04			VM4805
Ethylbenzene	<3ug/kg dw		03/08/04			VM4805
Styrene	<3ug/kg dw		03/08/04			VM4805
m,p-Xylene	<3ug/kg dw		03/08/04			VM4805
o-Xylene	<3ug/kg dw		03/08/04			VM4805

TCL Semivolatiles by EPA Method 8270

Phenol	<380ug/kg dw		03/08/04			SA4119
bis(2-Chloroethyl)ether	<380ug/kg dw		03/08/04			SA4119
2-Chlorophenol	<380ug/kg dw		03/08/04			SA4119

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06504043  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_ Lab I.D.: 10170  
Sampled by: Client

ID:06504048 Mat:Soil BCI PHASE II/0333 ISB7(4'-6') & ISB8(7'-10') 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
1,3-Dichlorobenzene	<380ug/kg dw		03/08/04				SA4119
1,4-Dichlorobenzene	<380ug/kg dw		03/08/04				SA4119
1,2-Dichlorobenzene	<380ug/kg dw		03/08/04				SA4119
2-Methylphenol	<380ug/kg dw		03/08/04				SA4119
2,2'-Oxybis(1-Chloropropane)	<380ug/kg dw		03/08/04				SA4119
4-Methylphenol	<380ug/kg dw		03/08/04				SA4119
n-Nitrosodipropylamine	<380ug/kg dw		03/08/04				SA4119
Hexachloroethane	<380ug/kg dw		03/08/04				SA4119
Nitrobenzene	<380ug/kg dw		03/08/04				SA4119
Isophorone	<380ug/kg dw		03/08/04				SA4119
2-Nitrophenol	<380ug/kg dw		03/08/04				SA4119
2,4-Dimethylphenol	<380ug/kg dw		03/08/04				SA4119
Bis(2-Chloroethoxy)methane	<380ug/kg dw		03/08/04				SA4119
2,4-Dichlorophenol	<380ug/kg dw		03/08/04				SA4119
1,2,4-Trichlorobenzene	<380ug/kg dw		03/08/04				SA4119
Naphthalene	<380ug/kg dw		03/08/04				SA4119
4-Chloroaniline	<380ug/kg dw		03/08/04				SA4119
Hexachlorobutadiene	<380ug/kg dw		03/08/04				SA4119
4-Chloro-3-methylphenol	<380ug/kg dw		03/08/04				SA4119
2-Methylnaphthalene	<380ug/kg dw		03/08/04				SA4119
Hexachlorocyclopentadiene	<380ug/kg dw		03/08/04				SA4119
2,4,6-Trichlorophenol	<380ug/kg dw		03/08/04				SA4119
2,4,5-Trichlorophenol	<380ug/kg dw		03/08/04				SA4119
2-Chloronaphthalene	<380ug/kg dw		03/08/04				SA4119
2-Nitroaniline	<3800ug/kg dw		03/08/04				SA4119
Dimethylphthalate	<380ug/kg dw		03/08/04				SA4119
Acenaphthylene	<380ug/kg dw		03/08/04				SA4119
2,6-Dinitrotoluene	<380ug/kg dw		03/08/04				SA4119
3-Nitroaniline	<3800ug/kg dw		03/08/04				SA4119
Acenaphthene	<380ug/kg dw		03/08/04				SA4119
2,4-Dinitrophenol	<3800ug/kg dw		03/08/04				SA4119
4-Nitrophenol	<3800ug/kg dw		03/08/04				SA4119
Dibenzofuran	<380ug/kg dw		03/08/04				SA4119
2,4-Dinitrotoluene	<380ug/kg dw		03/08/04				SA4119
Diethylphthalate	<380ug/kg dw		03/08/04				SA4119
4-Chlorophenylphenylether	<380ug/kg dw		03/08/04				SA4119
Fluorene	<380ug/kg dw		03/08/04				SA4119
4-Nitroaniline	<3800ug/kg dw		03/08/04				SA4119
2-Methyl-4,6-dinitrophenol	<3800ug/kg dw		03/08/04				SA4119
n-Nitrosodiphenylamine	<380ug/kg dw		03/08/04				SA4119
4-Bromophenylphenylether	<380ug/kg dw		03/08/04				SA4119
Hexachlorobenzene	<380ug/kg dw		03/08/04				SA4119
Pentachlorophenol	<760ug/kg dw		03/08/04				SA4119
Phenanthrene	<380ug/kg dw		03/08/04				SA4119

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06504043  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06504048 Mat:Soil BCI PHASE II/0333 ISB7(4'-8') & ISB8(7'-10') 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Anthracene	<380ug/kg dw		03/08/04				SA4119
Carbazole	<380ug/kg dw		03/08/04				SA4119
Di-n-butylphthalate	<380ug/kg dw		03/08/04				SA4119
Fluoranthene	<380ug/kg dw		03/08/04				SA4119
Pyrene	<380ug/kg dw		03/08/04				SA4119
Butylbenzylphthalate	<380ug/kg dw		03/08/04				SA4119
1,3'-Dichlorobenzidine	<380ug/kg dw		03/08/04				SA4119
Benzo(a)anthracene	<380ug/kg dw		03/08/04				SA4119
Chrysene	<380ug/kg dw		03/08/04				SA4119
bis(2-ethylhexyl)phthalate	1400ug/kg dw		03/08/04				SA4119
Di-n-octylphthalate	<380ug/kg dw		03/08/04				SA4119
Benzo(b)fluoranthene	<380ug/kg dw		03/08/04				SA4119
Benzo(k)fluoranthene	<380ug/kg dw		03/08/04				SA4119
Benzo(a)pyrene	<380ug/kg dw		03/08/04				SA4119
Indeno(1,2,3-cd)pyrene	<380ug/kg dw		03/08/04				SA4119
Dibenz(a,h)anthracene	<380ug/kg dw		03/08/04				SA4119
Benzo(ghi)perylene	<380ug/kg dw		03/08/04				SA4119

ID:06504049 Mat:Soil BCI PHASE II/0333 ISB9(0'-7') 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Percent Solids	83%		03/09/04				NE7251
Total Arsenic by Low Level	6.3mg/kg dw		03/08/04				NE6120
Total Barium	130mg/kg dw		03/08/04				NE6119
Total Cadmium	3.1mg/kg dw		03/08/04				NE6119
Total Chromium	23mg/kg dw		03/08/04				NE6119
Total Lead	36mg/kg dw		03/08/04				NE6119
Total Mercury	0.80mg/kg dw		03/07/04				NE6118
Total Selenium by Low Level	<0.7mg/kg dw		03/08/04				NE6120
Total Silver	<6mg/kg dw		03/08/04				NE6119

TCL Volatiles by EPA Method 8260

Chloromethane	<600ug/kg dw		03/08/04		5		VM4805
Bromomethane	<600ug/kg dw		03/08/04		5		VM4805
Vinyl Chloride	<600ug/kg dw		03/08/04		5		VM4805
Chloroethane	<600ug/kg dw		03/08/04		5		VM4805
Methylene Chloride	<600ug/kg dw		03/08/04		5		VM4805
Acetone	<3000ug/kg dw		03/08/04		5		VM4805
Carbon Disulfide	<600ug/kg dw		03/08/04		5		VM4805
1,1-Dichloroethane	<600ug/kg dw		03/08/04		5		VM4805
1,1-Dichloroethane	<600ug/kg dw		03/08/04		5		VM4805
trans-1,2-Dichloroethane	<600ug/kg dw		03/08/04		5		VM4805
cis-1,2-Dichloroethane	<600ug/kg dw		03/08/04		5		VM4805

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
 Analysis Results  
 Report Number: 06504043  
 Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
 QC: \_\_\_\_\_  
 Lab I.D.: 10170  
 Sampled by: Client

-----  
 ID:06504049 Mat:Soil BCI PHASE II/0333 ISB9(01-71) 03/03/04 C  
 -----

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILES
Chloroform	<600ug/kg dw		03/08/04		5		VM4805
1,2-Dichloroethane	<600ug/kg dw		03/08/04		5		VM4805
2-Butanone	<2000ug/kg dw		03/08/04		5		VM4805
1,1,1-Trichloroethane	<600ug/kg dw		03/08/04		5		VM4805
Carbon Tetrachloride	<600ug/kg dw		03/08/04		5		VM4805
Bromodichloroethane	<600ug/kg dw		03/08/04		5		VM4805
1,2-Dichloropropane	<600ug/kg dw		03/08/04		5		VM4805
cis-1,3-Dichloropropane	<600ug/kg dw		03/08/04		5		VM4805
Trichloroethane	<600ug/kg dw		03/08/04		5		VM4805
Dibromochloroethane	<600ug/kg dw		03/08/04		5		VM4805
1,1,2-Trichloroethane	<600ug/kg dw		03/08/04		5		VM4805
Heptane	<600ug/kg dw		03/08/04		5		VM4805
trans-1,3-Dichloropropene	<600ug/kg dw		03/08/04		5		VM4805
Bromoform	<600ug/kg dw		03/08/04		5		VM4805
4-Methyl-2-pentanone	<2500ug/kg dw		03/08/04		5		VM4805
2-Hexanone	<2000ug/kg dw		03/08/04		5		VM4805
Tetrachloroethene	<600ug/kg dw		03/08/04		5		VM4805
1,1,2,2-Tetrachloroethane	<600ug/kg dw		03/08/04		5		VM4805
Toluene	<600ug/kg dw		03/08/04		5		VM4805
Chlorobenzene	<600ug/kg dw		03/08/04		5		VM4805
Ethylbenzene	9600ug/kg dw		03/08/04				VM4805
Styrene	<600ug/kg dw		03/08/04		5		VM4805
m,p-Xylene	11,000ug/kg dw		03/08/04		5		VM4805
o-Xylene	<600ug/kg dw		03/08/04		5		VM4805

TCL Semivolatiles by EPA Method 8270

Phenol	<400ug/kg dw		03/08/04				SA4119
bis(2-Chloroethyl) ether	<400ug/kg dw		03/08/04				SA4119
2-Chlorophenol	<400ug/kg dw		03/08/04				SA4119
1,3-Dichlorobenzene	<400ug/kg dw		03/08/04				SA4119
1,4-Dichlorobenzene	<400ug/kg dw		03/08/04				SA4119
1,2-Dichlorobenzene	<400ug/kg dw		03/08/04				SA4119
2-Methylphenol	<400ug/kg dw		03/08/04				SA4119
2,2'-Oxybis(1-Chloropropane)	<400ug/kg dw		03/08/04				SA4119
4-Methylphenol	<400ug/kg dw		03/08/04				SA4119
n-Nitrosodipropylamine	<400ug/kg dw		03/08/04				SA4119
Hexachloroethane	<400ug/kg dw		03/08/04				SA4119
Nitrobenzene	<400ug/kg dw		03/08/04				SA4119
Isophorone	<400ug/kg dw		03/08/04				SA4119
2-Nitrophenol	<400ug/kg dw		03/08/04				SA4119
2,4-Dimethylphenol	<400ug/kg dw		03/08/04				SA4119
bis(2-Chloroethoxy)methane	<400ug/kg dw		03/08/04				SA4119
2,4-Dichlorophenol	<400ug/kg dw		03/08/04				SA4119
1,2,4-Trichlorobenzene	<400ug/kg dw		03/08/04				SA4119

dw = Dry weight



DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06504043  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

ID:06504049 Mat:Soil BCI PHASE II/0333 ISB9(01-71) 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Naphthalene	<400ug/kg dw		03/08/04				SM4119
4-Chloroaniline	<400ug/kg dw		03/08/04				SM4119
Hexachlorobutadiene	<400ug/kg dw		03/08/04				SM4119
4-Chloro-3-methylphenol	<400ug/kg dw		03/08/04				SM4119
2-Methylnaphthalene	<400ug/kg dw		03/08/04				SM4119
Hexachlorocyclopentadiene	<400ug/kg dw		03/08/04				SM4119
2,4,6-Trichlorophenol	<400ug/kg dw		03/08/04				SM4119
2,4,5-Trichlorophenol	<400ug/kg dw		03/08/04				SM4119
2-Chloronaphthalene	<400ug/kg dw		03/08/04				SM4119
2-Nitroaniline	<400ug/kg dw		03/08/04				SM4119
Dimethylphthalate	<400ug/kg dw		03/08/04				SM4119
Acenaphthylene	<400ug/kg dw		03/08/04				SM4119
2,6-Dinitrotoluene	<400ug/kg dw		03/08/04				SM4119
3-Nitroaniline	<400ug/kg dw		03/08/04				SM4119
Acenaphthene	<400ug/kg dw		03/08/04				SM4119
2,4-Dinitrophenol	<400ug/kg dw		03/08/04				SM4119
4-Nitrophenol	<400ug/kg dw		03/08/04				SM4119
Dibenzofuran	<400ug/kg dw		03/08/04				SM4119
2,4-Dinitrotoluene	<400ug/kg dw		03/08/04				SM4119
Diethylphthalate	<400ug/kg dw		03/08/04				SM4119
4-Chlorophenylphenylether	<400ug/kg dw		03/08/04				SM4119
Fluorene	<400ug/kg dw		03/08/04				SM4119
4-Nitroaniline	<400ug/kg dw		03/08/04				SM4119
2-Methyl-4,6-dinitrophenol	<400ug/kg dw		03/08/04				SM4119
n-Nitrosodiphenylamine	<400ug/kg dw		03/08/04				SM4119
4-Bromophenylphenylether	<400ug/kg dw		03/08/04				SM4119
Hexachlorobenzene	<400ug/kg dw		03/08/04				SM4119
Pentachlorophenol	<400ug/kg dw		03/08/04				SM4119
Phenanthrene	<400ug/kg dw		03/08/04				SM4119
Anthracene	<400ug/kg dw		03/08/04				SM4119
Carbazole	<400ug/kg dw		03/08/04				SM4119
Di-n-butylphthalate	<400ug/kg dw		03/08/04				SM4119
Fluoranthene	<400ug/kg dw		03/08/04				SM4119
Pyrene	<400ug/kg dw		03/08/04				SM4119
Butylbenzylphthalate	<400ug/kg dw		03/08/04				SM4119
3,3'-Dichlorobenzidine	<400ug/kg dw		03/08/04				SM4119
Benzo (a) anthracene	<400ug/kg dw		03/08/04				SM4119
Chrysene	<400ug/kg dw		03/08/04				SM4119
bis(2-Ethylhexyl)phthalate	1800ug/kg dw		03/08/04				SM4119
Di-n-octylphthalate	<400ug/kg dw		03/08/04				SM4119
Benzo (b) fluoranthene	<400ug/kg dw		03/08/04				SM4119
Benzo (k) fluoranthene	<400ug/kg dw		03/08/04				SM4119
Benzo (a) pyrene	<400ug/kg dw		03/08/04				SM4119
Indeno (1,2,3-cd) pyrene	<400ug/kg dw		03/08/04				SM4119

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06504043  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_  
Lab I.D.: 10170  
Sampled by: Client

-----  
ID:06504049 Mat:Soil BCI PHASE II/0333 ISB9(0'-7') 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Dibenzo(a,h)anthracene	<400ug/kg dw		03/08/04				SA4129
Benzo(ghi)perylene	<400ug/kg dw		03/08/04				SA4119

-----  
ID:06504050 Mat:Solid BCI PHASE II/0333 GLAZE MAKING AREA 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Percent Solids	100%		03/09/04				WE7251
Total Cadmium	6.3mg/kg dw		03/08/04				MB6119
Total Lead	25,000mg/kg dw		03/08/04				MB6119

-----  
ID:06504051 Mat:Solid BCI PHASE II/0333 GLAZE RECLAIM AREA 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Percent Solids	100%		03/09/04				WE7251
Total Cadmium	17mg/kg dw		03/08/04				MB6119
Total Lead	11000mg/kg dw		03/08/04				MB6119

-----  
ID:06504052 Mat:Solid BCI PHASE II/0333 TK-6 SPRAY GLAZE 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Percent Solids	95%		03/09/04				WE7251
Total Cadmium	6.3mg/kg dw		03/08/04				MB6119
Total Lead	38,000mg/kg dw		03/08/04				MB6119

-----  
ID:06504053 Mat:Solid BCI PHASE II/0333 COLOR CELL SPRAY GLAZE 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Percent Solids	100%		03/09/04				WE7251
Total Cadmium	27mg/kg dw		03/08/04				MB6119
Total Lead	43,000mg/kg dw		03/08/04				MB6119

-----  
ID:06504054 Mat:Solid BCI PHASE II/0333 OLD SLIP HOUSE 03/03/04 C

PARAMETERS	RESULTS	TIME	DATE	ANAL.	KEY	KEY	FILE#
Percent Solids	93%		03/09/04				WE7251
Total Cadmium	38mg/kg dw		03/08/04				MB6119
Total Lead	2200mg/kg dw		03/08/04				MB6119

dw = Dry weight

DATE: / /

Upstate Laboratories, Inc.  
Analysis Results  
Report Number: 06504043  
Client I.D.: ENVIRONMENTAL AUDITS, INC.

APPROVAL: \_\_\_\_\_  
QC: \_\_\_\_\_ Lab I.D.: 10170  
Sampled by: Client

-----  
ID:06504055 Mat:Solid BCI PHASE II/0333 GLAZE RECOVERY TRENCH 03/03/04 C  
-----

PARAMETERS	RESULTS	TIME	DATE	ANAL. KEY	KEY	FILE#
Percent Solids	71%		03/09/04			WE7251
Total Cadmium	2.9mg/kg dw		03/08/04			MB6119
Total Lead	27,000mg/kg dw		03/09/04			MB6124

dw = Dry weight





# Upstate Laboratories, Inc.

6034 Corporate Drive • E. Syracuse, NY 13057-1017  
 (315) 437 0255 Fax 437 1209

## Chain of Custody Record

3/9/04 ADD 3/8/04

Sample Location:	Date	Time	Matrix	Grab or Comp.	ULI Internal Use Only	No. of Containers	Chain of Custody										Special Turnaround Time (Lab Notification required)	Remarks							
							11	12	13	14	15	16	17	18	19	20			21	22	23	24	25	26	27
8260 TCL	3/1/04		Soil	C	06204009	2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
8270 TCL	3/1/04		Soil	C		2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
RCRA METALS	3/1/04		Soil	C		2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
TOTAL LEAD	3/1/04		Soil	C		2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
TOTAL CADMIUM	3/1/04		Soil	C		2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
(% Solids) X <sub>3-2-04</sub>	3/1/04		Soil	C		2	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

Client: **Environ mental Analyt**  
 Client Project # / Project Name: **0322 / BCL Phas II**  
 Site Location (city/state): **Buffalo NY**  
 Client Contact: **S. Overhoff**  
 Phone #:  
 Date:  
 Time:  
 Matrix:  
 Grab or Comp.:  
 ULI Internal Use Only:  
 No. of Containers:  
 Special Turnaround Time (Lab Notification required):  
 Remarks:

parameter and method

parameter and method	sample bottle:	type	size	pres.	Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Time
1) 8260 TCL		GL		COOL	Scott Overhoff	3/1/04	1530	[Signature]	
2) 8270 TCL		GL			Environ mental Analyt	3/1/04	1700	[Signature]	
3) RCRA METALS		GL							
4) TOTAL LEAD		GL							
5) TOTAL CADMIUM		GL							
6) (% Solids) X <sub>3-2-04</sub>									
7)									
8)									
9)									
10)									

Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner.



**Upstate Laboratories, Inc.**  
 6034 Corporate Drive • E. Syracuse, NY 13057-1017  
 (315) 437 0255 Fax 437 1209

**CHAIN OF CUSTODY RECORD**

3/9/04 HOD 3/8/04

Client	Client Project # / Project Name		Date	Matrix	Grab or Comp.	ULI Internal Use Only	No. of Containers	No. of Containers					Special Turnaround Time (Lab Notification required)	Remarks				
	Phone #	Site Location (city/state)						11	12	13	14	15			16	17		
Environmental Analyt		0313 / RCI Phase 2	2/26/04	Soil	Comp	06204001	1	X	X	X	X	X						
S. Overhoff		Buffalo, NY	2/26/04				2	X	X	X	X	X						
			2/27/04				3	X	X	X	X	X						
			2/27/04				4	X	X	X	X	X						
			2/27/04				5	X	X	X	X	X						
			2/27/04				6	X	X	X	X	X						
			2/27/04				7	X	X	X	X	X						
			2/27/04				8	X	X	X	X	X						
							9											
							10											
parameter and method	sample bottle:	type	size	pres.	Sampled by: (Please Print) Staff Overhoff													
1) 82-60 TEL		Coil		cool	Company: Environmental Analyt													
2) 8270 TEL					Relinquished by: (Signature) Staff Overhoff	Date	Time								Received by: (Signature)			
3) RCRA METALS					Staff Overhoff	3/1/04	1530								Staff Overhoff			
4) TOTAL LEAD																		
5) TOTAL CADMIUM																		
6) (% Solids) K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>								Relinquished by: (Signature) Staff Overhoff	Date	Time								Received by: (Signature)
7)								Staff Overhoff	3/1/04	1700								
8)																		
9)																		
10)																		

Note: The numbered columns above cross-reference with the numbered columns in the upper right-hand corner.

Syracuse      Rochester      Buffalo      Albany      Binghamton      Fair Lawn (NJ)

**Attachment 3**

**Summary Data Tables**



**Table 1**  
**Soil Sample Analytical Results Summary**  
**Volatile Organic Compounds**

**February 26 & 27, 2004 Sampling Dates**

Analytical Parameter	SB12 (4-12')	SB14 (8-12')	SB18 (8-12')	SB21 (4-12')	SB22 (4-16')	Recommended Soil Cleanup Objective (TACM 4046)
Chloromethane	"	"	"	"	"	NA
Bromomethane	"	"	"	"	"	NA
Vinyl Chloride	"	"	"	"	"	200
Chloroethane	"	"	"	"	"	1,900
Methylene Chloride	"	"	"	"	"	100
Acetone	"	"	"	"	"	200
Carbon Disulfide	"	"	"	"	"	2,700
1,1-Dichloroethene	"	"	"	"	"	400
1,1-Dichloroethane	"	"	"	"	"	200
Trans-1,2-Dichloroethene	"	"	"	"	"	300
Cis-1,2-Dichloroethene	"	"	"	"	"	NA
Chloroform	"	"	"	"	"	300
1,2-Dichloroethane	"	"	"	"	"	100
2-Butanone	"	"	"	"	"	300
1,1,1-Trichloroethane	"	"	"	"	"	800
Carbon Tetrachloride	"	"	"	"	"	600
Bromodichloromethane	"	"	"	"	"	NA
1,2-Dichloropropane	"	"	"	"	"	NA
Cis-1,3-Dichloropropene	"	"	"	"	"	300
Trichloroethene	"	"	"	"	"	700
Dibromochloromethane	"	"	"	"	"	NA
3,1,2-Trichloroethane	"	"	"	"	"	NA
Benzene	"	"	"	"	"	60
Trans-1,3-Dichloropropene	"	"	"	"	"	300
Bromoform	"	"	"	"	"	NA
4-Methyl-2-pentanone	"	"	"	"	"	100
2-Hexanone	"	"	"	"	"	NA
Tetrachloroethene	"	"	"	"	"	1,400
1,1,2,2-Tetrachloroethane	"	"	"	"	"	600
Toluene	"	"	"	"	"	1,500
Chlorobenzene	"	"	"	"	"	1,700
Ethylbenzene	"	"	"	"	930	5,500
Styrene	"	"	"	"	"	NA
Xylenes	"	"	2,900	"	11,500	1,200

- Notes:**
- 1) Results from USEPA Method 8260 for Volatiles; All results in ppb (ug/kg).
  - 2) Shaded results indicate the concentration detected exceeds the Recommended Soil Cleanup Objective.
  - 3) NA = Not Applicable
  - 4) " = Parameter not detected above Method Detection Limit (MDL).

**Table 1 (Continued)**  
**Soil Sample Analytical Summary**  
**Volatile Organics**

**March 1, 2004 Sampling Date**

Analytical Parameter	SB30,31 832 (4-10)	SB33 (0-4)	SB35 (4-10)	SB37 (4-5.5)	Recommended Soil Cleanup Objective (TAGM 4046)
Chloromethane	"	"	"	"	NA
Bromomethane	"	"	"	"	NA
Vinyl Chloride	"	"	"	"	200
Chloroethane	"	"	"	"	1,900
Methylene Chloride	"	"	"	"	100
Acetone	"	"	"	"	200
Carbon Disulfide	"	"	"	"	2,700
1,1-Dichloroethene	"	"	"	"	400
1,1-Dichloroethane	"	"	"	"	200
Trans-1,2-Dichloroethene	"	"	"	"	300
Cis-1,2-Dichloroethene	"	"	"	"	NA
Chloroform	"	"	"	"	300
1,2-Dichloroethane	"	"	"	"	100
2-Butanone	"	"	"	"	300
1,1,1-Trichloroethane	"	"	"	"	800
Carbon Tetrachloride	"	"	"	"	600
Bromodichloromethane	"	"	"	"	NA
1,2-Dichloropropane	"	"	"	"	NA
Cis-1,3-Dichloropropene	"	"	"	"	300
Trichloroethene	100	"	250,000	620	700
Dibromochloromethane	"	"	"	"	NA
3,1,2-Trichloroethane	"	"	"	"	NA
Benzene	"	"	"	"	60
Trans-1,3-Dichloropropene	"	"	"	"	300
Bromoform	"	"	"	"	NA
4-Methyl-2-pentanone	"	"	"	"	100
2-Hexanone	"	"	"	"	NA
Tetrachloroethene	"	"	"	"	1,400
1,1,2,2-Tetrachloroethane	"	"	"	"	600
Toluene	"	"	"	"	1,500
Chlorobenzene	"	"	"	"	1,700
Ethylbenzene	"	"	"	"	5,500
Styrene	"	"	"	"	NA
Xylenes	"	7,600	"	"	1,200

- Notes:**
- 1) Results from USEPA Method 8260 for Volatiles; All results in ppb (ug/kg).
  - 2) Shaded results indicate the concentration detected exceeds the Recommended Soil Cleanup Objective.
  - 3) NA = Not Applicable
  - 4) " = Parameter not detected above Method Detection Limit (MDL).

**Table 1 (Continued)**  
**Soil Sample Analytical Summary**  
**Volatile Organics**

**March 3, 2004 Sampling Date**

Analytical Parameter	ISB2 (4-8)	ISB6 (0-8)	ISB7&8 (4-8) & (7-10)	ISB9 (0-7)	Recommended Soil Cleanup Objective (TAGM 4046)
Chloromethane	"	"	"	"	NA
Bromomethane	"	"	"	"	NA
Vinyl Chloride	"	"	"	"	200
Chloroethane	"	"	"	"	1,900
Methylene Chloride	9	8	7	"	100
Acetone	"	"	"	"	200
Carbon Disulfide	"	"	"	"	2,700
1,1-Dichloroethene	"	"	"	"	400
1,1-Dichloroethane	"	"	"	"	200
Trans-1,2-Dichloroethene	"	"	"	"	300
Cis-1,2-Dichloroethene	"	"	14	"	NA
Chloroform	"	"	"	"	300
1,2-Dichloroethane	"	"	"	"	100
2-Butanone	"	"	"	"	300
1,1,1-Trichloroethane	"	"	"	"	800
Carbon Tetrachloride	"	"	"	"	600
Bromodichloromethane	"	"	"	"	NA
1,2-Dichloropropane	"	"	"	"	NA
Cis-1,3-Dichloropropene	"	"	"	"	300
Trichloroethene	"	"	130	"	700
Dibromochloromethane	"	"	"	"	NA
3,1,2-Trichloroethane	"	"	"	"	NA
Benzene	"	"	"	"	60
Trans-1,3-Dichloropropene	"	"	"	"	300
Bromoform	"	"	"	"	NA
4-Methyl-2-pentanone	"	"	"	"	100
2-Hexanone	"	"	"	"	NA
Tetrachloroethene	"	"	5	"	1,400
1,1,2,2-Tetrachloroethane	"	"	"	"	600
Toluene	"	"	"	"	1,500
Chlorobenzene	"	"	"	"	1,700
Ethylbenzene	"	"	"	9,600	5,500
Styrene	"	"	"	"	NA
Xylenes	"	"	"	11,000	1,200

- Notes:**
- 1) Results from USEPA Method 8260 for Volatiles; All results in ppb (ug/kg).
  - 2) Shaded results indicate the concentration detected exceeds the Recommended Soil Cleanup Objective.
  - 3) NA = Not Applicable
  - 4) " = Parameter not detected above Method Detection Limit (MDL).

**Table 2**

**Soil Sample Analytical Results  
Semi-volatile Organics**

**February 26 & 27, 2004 Sampling Dates**

Analytical Parameter	SB12 (4-12)	SB14 (8-12)	SB18 (8-12)	SB21 (4-12)	SB22 (4-16)	Recommended Soil Cleanup Objective (TACM-4046)
Phenol	"	"	"	"	"	30 or MDL
bis(2-Chloroethyl)ether	"	"	"	"	"	NA
2-Chlorophenol	"	"	"	"	"	800
1,3-Dichlorobenzene	"	"	"	"	"	1,600
1,4-Dichlorobenzene	"	"	"	"	"	8,500
1,2-Dichlorobenzene	"	"	"	"	"	7,900
2-Methylphenol	"	"	"	"	"	100 or MDL
2,2-Oxybis(1-Chloropropane)	"	"	"	"	"	NA
4-Methylphenol	"	830	"	"	"	900
n-Nitrosodipropylamine	"	"	"	"	"	NA
Hexachloroethane	"	"	"	"	"	NA
Nitrobenzene	"	"	"	"	"	200 or MDL
Isophorone	"	"	"	"	"	4,400
2-Nitrophenol	"	"	"	"	"	330 or MDL
2,4-Dimethylphenol	"	990	"	"	"	NA
bis(2-Chloroethoxy)methane	"	"	"	"	"	NA
2,4-Dichlorophenol	"	"	"	"	"	400
1,2,4-Trichlorobenzene	"	"	"	"	"	3,400
Naphthalene	"	>3,700	2,000	1,200	4,500	13,000
4-Chloroaniline	"	"	"	"	"	220 or MDL
Hexachlorobutadiene	"	"	"	"	"	NA
4-Chloro-3-methylphenol	"	"	"	"	"	240 or MDL
2-Methylnaphthalene	"	>3,700	2,400	2,300	3,500	36,400
Hexachlorocyclopentadiene	"	"	"	"	"	NA
2,4,6-Trichlorophenol	"	"	"	"	"	NA
2,4,5-Trichlorophenol	"	"	"	"	"	100
2-Chloronaphthalene	"	"	"	"	"	NA
2-Nitroaniline	"	"	"	"	"	430 or MDL
Dimethylphthalate	"	"	"	"	"	2,000
Acenaphthylene	"	3,200	"	580	"	41,000
2,6-Dinitrotoluene	"	"	"	"	"	1,000
3-Nitroaniline	"	"	"	"	"	500 or MDL

- Notes:**
- 1) Results from USEPA Method 8270 for Semi-volatiles; All results in ppb (ug/kg).
  - 2) Shaded results indicate that the concentration detected exceeds the Recommended Soil Cleanup Objective.
  - 3) NA means Not Applicable.
  - 4) MDL means Method Detection Limit.
  - 5) " means compound not detected above MDL.
  - 6) > with result - see Lab Report for explanation.



**Table 2 (Continued)**

**Soil Sample Analytical Results  
Semi-volatile Organics**

**February 26 & 27, 2004 Sampling Dates**

Analytical Parameter	SB12 (4-12)	SB14 (8-12)	SB18 (8-12)	SB21 (4-12)	SB22 (4-16)	Recommended Soil Cleanup Objective (TAGM 4046)
Acenaphthene	"	>3,700	"	3,000	3,200	50,000
2,4-Dinitrophenol	"	"	"	"	"	200 or MDL
4-Nitrophenol	"	"	"	"	"	100 or MDL
Dibenzofuran	"	>3,700	"	1,400	2,200	6,200
2,4-Dinitrotoluene	"	920	"	"	"	NA
Diethylphthalate	"	"	"	"	"	NA
4-Chlorophenylphenylether	"	"	"	"	"	NA
Fluorene	"	>3,700	"	3,400	3,600	50,000
4-Nitroanaline	"	"	"	"	4,400	NA
2-Methyl-4,6-dinitrophenol	"	"	"	"	"	NA
n-Nitrosodiphenylamine	"	"	"	"	"	NA
4-Bromophenylphenylether	"	"	"	"	"	NA
Hexachlorobenzene	"	"	"	"	"	410
Pentachlorophenol	"	"	"	"	"	1,000 or MDL
Phenanthrene	970	250,000	"	15,000	21,000	50,000
Anthracene	"	>3,700	"	>3,800	5,100	50,000
Carbazole	"	>3,700	"	1,200	1,900	NA
Di-n-butylphthalate	"	"	"	"	1,800	8,100
Fluoranthene	870	210,000	"	13,000	20,000	50,000
Pyrene	540	140,000	"	11,000	15,000	50,000
Butylbenzylphthalate	"	"	"	"	"	50,000
3,3-Dichlorobenzidine	"	"	"	"	"	NA
Benzo(a)anthracene	"	>3,700	"	5,600	7,800	224 or MDL
Chrysene	"	>3,700	"	4,100	6,900	400
bis(2-Ethylhexyl)phthalate	3,500	1,300	"	690	940	50,000
Di-n-octylphthalate	"	"	"	"	"	50,000
Benzo(b)fluoranthene	590	>3,700	"	5,700	8,000	1,100
Benzo(k)fluoranthene	"	>3,700	"	1,700	2,600	1,100
Benzo(a)pyrene	"	4,400	"	3,600	5,600	61 or MDL
Indeno(1,2,3-cd)pyrene	"	>3,700	"	1,600	2,900	NA
Dibenzo(a,h)anthracene	"	530	"	"	"	14 or MDL
Benzo(g,h,i)perylene	"	2,500	"	1,600	2,800	50,000

- Notes:**
- 1) Results from USEPA Method 8270 for Semi-volatiles; All results in ppb (ug/kg).
  - 2) Shaded results indicate that the concentration detected exceeds the Recommended Soil Cleanup Objective.
  - 3) NA means Not Applicable.
  - 4) MDL means Method Detection Limit.
  - 5) " means compound not detected above MDL.
  - 6) > with result - see Lab Report for explanation.

**Table 2 (Continued)**

**Soil Sample Analytical Results  
Semi-volatile Organics**

**March 1 & 3, 2004 Sampling Dates**

Analytical Parameter	SB33 (0-4)	SB36 (8-9)	ISB2 (4-8)	ISB6 (0-8)	ISB7&8 (4-8) & (7-10)	ISB9 (0-7)	Recommended Soil Cleanup Objective (TAGM 4046)
Phenol	"	"	"	"	"	"	30 or MDL
bis(2-Chloroethyl)ether	"	"	"	"	"	"	NA
2-Chlorophenol	"	"	"	"	"	"	800
1,3-Dichlorobenzene	"	"	"	"	"	"	1,600
1,4-Dichlorobenzene	"	"	"	"	"	"	8,500
1,2-Dichlorobenzene	"	"	"	"	"	"	7,900
2-Methylphenol	"	"	"	"	"	"	100 or MDL
2,2-Oxybis(1-Chloropropane)	"	"	"	"	"	"	NA
4-Methylphenol	"	"	"	"	"	"	900
n-Nitrosodipropylamine	"	"	"	"	"	"	NA
Hexachloroethane	"	"	"	"	"	"	NA
Nitrobenzene	"	"	"	"	"	"	200 or MDL
Isophorone	"	"	"	"	"	"	4,400
2-Nitrophenol	"	"	"	"	"	"	330 or MDL
2,4-Dimethylphenol	"	"	"	"	"	"	NA
bis(2-Chloroethoxy)methane	"	"	"	"	"	"	NA
2,4-Dichlorophenol	"	"	"	"	"	"	400
1,2,4-Trichlorobenzene	"	"	"	"	"	"	3,400
Naphthalene	"	"	"	"	"	"	13,000
4-Chloroaniline	"	"	"	"	"	"	220 or MDL
Hexachlorobutadiene	"	"	"	"	"	"	NA
4-Chloro-3-methylphenol	"	"	"	"	"	"	240 or MDL
2-Methylnaphthalene	1,500	"	"	"	"	"	36,400
Hexachlorocyclopentadiene	"	"	"	"	"	"	NA
2,4,6-Trichlorophenol	"	"	"	"	"	"	NA
2,4,5-Trichlorophenol	"	"	"	"	"	"	100
2-Chloronaphthalene	"	"	"	"	"	"	NA
2-Nitroaniline	"	"	"	"	"	"	430 or MDL
Dimethylphthalate	"	"	"	"	"	"	2,000
Acenaphthylene	"	"	"	"	"	"	41,000
2,6-Dinitrotoluene	"	"	"	"	"	"	1,000
3-Nitroaniline	"	"	"	"	"	"	500 or MDL

- Notes:**
- 1) Results from USEPA Method 8270 for Semi-volatiles; All results in ppb (ug/kg).
  - 2) Shaded results indicate that the concentration detected exceeds the Recommended Soil Cleanup Objective.
  - 3) NA means Not Applicable.
  - 4) MDL means Method Detection Limit.
  - 5) " means compound not detected above MDL.
  - 6) > with result - see Lab Report for explanation.

APPENDIX B  
STRATIGRAPHIC AND WELL  
CONSTRUCTION LOGS



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-1-07  
 DATE COMPLETED: July 25, 2007  
 DRILLING METHOD: Direct Push  
 FIELD PERSONNEL: R. Nashett/C. Barton

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE				
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	GROUND SURFACE	594.69					
2	FILL-gravel (GP), sand, coarse grained, low plasticity, light grey, dry			X			
4	GP-GRAVEL and SAND, medium to coarse grained, dark grey	592.19	MC1	(SB-1)			0
6	CL-CLAY and SILT, firm, fine grained, medium plasticity, light brown, moist	589.89	MC2	X			5
8				X			
10	- SILTY CLAY, with sand, medium density, slightly moist below 9.8 ft BGS		MC3	X			0.4
12	- with gravel, medium to high plasticity, moist below 12 ft BGS		MC4	X			0.2
14		580.19	MC5	X			0.2
16	END OF BOREHOLE @ 14.5ft BGS						
18	Auger Refusal @ 14.5 ft BGS						
20	Sample interval @ 2 to 4 ft BGS						
22							
24							
26							
28							
30							
32							
34							

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10





# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-2-07  
 DATE COMPLETED: July 27, 2007  
 DRILLING METHOD: HSA  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE						
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)		
	NORTHING: 1045881.11 EASTING: 1082082.35	GROUND SURFACE							
2	FILL, gravel (GM), with sand, low density, medium to coarse grained, olive grey		SS1	X		15	0.1		
4	FILL, sand (SP), with gravel, low density, medium grained, olive	602.40	SS2	X		26	0.5		
6	- green tint below 6 ft BGS		SS3	X		16	0.8		
8	FILL, clay (CL), dense, light brown with red tint, slightly moist	599.90	SS4 SB-2	X		10	1		
10			SS5	X		44	1.5		
12	- with broken dishes below 12 ft BGS		SS6	X		30	1		
14			SS7	X		10	0.5		
16			SS8	X		7	0.7		
18	CL-CLAY (NATIVE), dense, fine grained, non-plastic, light brown, damp	590.40	SS9	X		7			
20	END OF BOREHOLE @ 19.5ft BGS	586.90	SS10	X		60			
22	Auger Refusal @ 19.5 ft BGS								
24	Sample interval @ 6.5 to 8 ft BGS								
26									
28									
30									
32									
34									

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-3-07  
 DATE COMPLETED: July 27, 2007  
 DRILLING METHOD: HSA  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE					
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)	
	GROUND SURFACE	605.20						
	NORTHING: 1045823.06 EASTING: 1082110.01							
2	FILL, gravel (GM), with sand	605.00						
	FILL, white material, hard, fine grained, appears to be concrete	604.70	SS1	X		19	0.1	
4	FILL-clay (CL)		SS2	X		14	0.3	
6			SS3	X		27		
	FILL-white powder, fine grained	599.20	SS4	X		13	1.1	
8			SS5	X		42		
10	FILL, sand (SM), with gravel, medium grained, dark brown, dry	597.20	SS6	X		40	1.5	
12	- some gravel, light grey below 12 ft BGS		SS7	X		27		
14			SS8	X		16	1.3	
16			SS9	X		21		
18	CL-CLAY (NATIVE), some gravel, dense, fine grained, some plasticity, damp	589.20	SS10	X		>50	0.4	
20	END OF BOREHOLE @ 19.0ft BGS	586.20						
22	Auger Refusal @ 19 ft BGS							
24	Sample interval @ 10 to 13 ft BGS							

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-4-07  
 DATE COMPLETED: July 26, 2007  
 DRILLING METHOD: HSA  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE				
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	GROUND SURFACE	603.74					
	NORTHING: 1045724.81 EASTING: 1082154.31						
2	FILL-gravel (GM), with sand, coarse grained, dark grey, dry  - white plastic/porcelain chunks mixed within the sample below 2 ft BGS		SS1	X		24	0.7
4			SS2 <del>SS4</del>	X		23	0.7
6			SS3	X		12	
8		595.74	SS4	X		10	0.4
10	FILL-clay (CL), with sand, with gravel, with small pieces of china, medium grained sand, fine grained gravel, dry		SS5	X		>50	
12			SS6	X		29	0.3
14	CL-CLAY, some gravel, fine grained, plastic, light brown, damp	590.74	SS7	X		25	0.1
16			SS8	X		12	0.4
18	END OF BOREHOLE @ 17.0ft BGS	586.74	SS9	X		>50	
20	Auger Refusal @ 17 ft BGS  Sample interval @ 2 to 4 ft BGS						

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-5-07  
 DATE COMPLETED: July 25, 2007  
 DRILLING METHOD: Direct Push  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE						
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)		
	NORTHING: 1045593.49 EASTING: 1082142.7	GROUND SURFACE							
	ASPHALT/ SUBBASE GRAVEL								
	GP-SANDY GRAVEL, coarse grained, light grey, dry	593.10							
2	CL-CLAY with silt, dense, fine grained, medium plasticity, light brown, slightly moist	592.10	MC1	X				0.4	
4	- trace silt, plastic below 4 ft BGS			X					
6			MC2 SB-5	X				0.8	
8	- GRAVELLY CLAY, loose, fine to medium grained, non-plastic, wet below 8 ft BGS		MC3	X				0.2	
	END OF BOREHOLE @ 8.5ft BGS	585.60							
10	Auger Refusal @ 8.5 ft BGS								
12	Sample interval @ 4 to 8 ft BGS								
14									
16									
18									
20									
22									
24									
26									
28									
30									
32									
34									

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-7-07  
 DATE COMPLETED: July 25, 2007  
 DRILLING METHOD: Direct Push  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE					
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)	
	NORTHING: 1045667.94 EASTING: 1082090.61	GROUND SURFACE						
	GP-GRAVEL, with sand, medium density, coarse grained, light grey, slightly moist	596.13		X				
	OL-SANDY CLAY, medium density, medium grained, light brown/dark grey, moist			X				
2	CL-CLAY, plastic, moist, odor	594.73	MC1	X				25.2
4			SB-7	X				
6			MC2	X				2.5
8			MC3	X				1.1
10	END OF BOREHOLE @ 10.0ft BGS	586.73		X				
12	Auger Refusal @ 10 ft BGS							
14	Sample interval @ 3 to 6 ft BGS							
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-8-07  
 DATE COMPLETED: July 25, 2007  
 DRILLING METHOD: Direct Push  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE					
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)	
	NORTHING: 1045640.65 EASTING: 1082107.18	GROUND SURFACE						
2	FILL, gravel - with glass below 1 ft BGS			X				
4	CLS-SANDY CLAY, medium grained, dark grey, odor	593.88	MC1	X				11.2
6	CL-CLAY	591.88		X				1
8				X				
10	END OF BOREHOLE @ 9.5ft BGS	586.38		X				1.6
12	Auger Refusal @ 9.5 ft BGS							
14	Sample interval @ 3.5 to 8 ft BGS							
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-9-07  
 DATE COMPLETED: July 25, 2007  
 DRILLING METHOD: Direct Push  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE						
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)		
	NORTHING: 1045636.85 EASTING: 1082042.47	GROUND SURFACE							
2	GP-GRAVEL, with sand, medium density, coarse grained, light grey, slightly moist	595.43		X					
4	OL-SANDY CLAY, medium density, medium grained, light brown/dark grey, moist		MC1	X					4.8
6			SB-9	X					
8			MC2	X					0.7
10	CL-CLAY, medium density, fine grained, plastic, light brown, moist	588.03	MC3	X					0.1
12	END OF BOREHOLE @ 10.5ft BGS	585.53							
14	Auger Refusal @ 10.5 ft BGS								
16	Sample interval @ 3 to 6 ft BGS								
18									
20									
22									
24									
26									
28									
30									
32									
34									

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-10-07  
 DATE COMPLETED: July 25, 2007  
 DRILLING METHOD: Direct Push  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE				
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	GROUND SURFACE	595.49					
	NORTHING: 1045606.92 EASTING: 1082057.6						
2	SP-GRAVELLY SAND, medium to coarse grained, dark grey, dry, possible organic vegetation present	594.79					
2	CLS-SANDY CLAY, fine grained, slightly plastic, dark brown to black, slightly moist	594.09	MC1	X			2.6
4	CL-CLAY, fine grained, reddish brown, damp			X			
6			SB-10 MC2	X			0.4
8			MC3	X			0.1
9	END OF BOREHOLE @ 9.0ft BGS	586.49					
10	Auger Refusal @ 9 ft BGS						
12	Sample interval @ 3 to 8 ft BGS						
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10





# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-11-07  
 DATE COMPLETED: July 25, 2007  
 DRILLING METHOD: Direct Push  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE				
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	GROUND SURFACE	596.55					
	NORTHING: 1045672.5 EASTING: 1082034.85						
2	Cored through ~6" thick concrete floor FILL, gravel (GP) with sand, medium density, coarse grained, moist CL-CLAY, medium dense, slightly plastic, light brown, slightly moist	596.35 596.05	MC1	X			13.2
4			SB-11	X			
6			MC2	X			1.5
8			MC3	X			0.4
10		586.05					
	END OF BOREHOLE @ 10.5ft BGS						
12	Auger Refusal @ 10.5 ft BGS						
14	Sample interval @ 2 to 6 ft BGS						
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

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

CHEMICAL ANALYSIS



OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-12-07  
 DATE COMPLETED: July 26, 2007  
 DRILLING METHOD: Direct Push  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE				
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	NORTHING: 1045701.51 EASTING: 1082077.3	GROUND SURFACE 596.49					
2	Cored through ~6" thick concrete floor SW-SAND, with gravel, dense, medium grained, grey, moist	596.29		X			
4	CL-CLAY, with sand, with gravel, dense, fine to coarse grained, plastic, brown, damp  - trace sand, fine grained, light brown below 4 ft BGS	594.49	MC1	X			6.7
6			SB-12	X			
8			MC2	X			3
10			MC3	X			3
10	END OF BOREHOLE @ 10.0ft BGS	586.49					
12	Auger Refusal @ 10 ft BGS						
14	Sample interval @ 3.5 to 6 ft BGS						
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-13-07  
 DATE COMPLETED: July 26, 2007  
 DRILLING METHOD: Direct Push  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE					
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)	
	NORTHING: 1045729.96 EASTING: 1082103.73	GROUND SURFACE						
		596.72						
2	Cored through ~6" thick concrete floor CL-GRAVELLY CLAY, dense, fine to coarse grained, non-plastic, brown, moist - fine grained, slightly plastic, light brown, below 2 ft BGS	596.52	MC1	X				44
4	- odor @ 4 ft BGS			X				
6			MC2	X				101
8	- odor @ 8 ft BGS		SB-13	X				
10			MC3	X				163
10	END OF BOREHOLE @ 10.0ft BGS	586.72						
12	Auger Refusal @ 10 ft BGS							
14	Sample interval @ 6 to 8 ft BGS							
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-14-07  
 DATE COMPLETED: July 26, 2007  
 DRILLING METHOD: Direct Push  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE				
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	GROUND SURFACE	596.73					
	NORTHING: 1045796.86 EASTING: 1082061.85						
2	Cored through ~6" thick concrete floor SW-SAND, medium grained, light brown, dry CL-CLAY, with sand, dense, fine to medium grained, light brown, damp	596.53 596.23	MC1	X			3.1
4	- some gravel, trace sand, fine grained below 4 ft BGS			X			
6			MC2	X			3.8
8			MC3	X			3.4
10	END OF BOREHOLE @ 9.5ft BGS	587.23					
12	Auger Refusal @ 9.5 ft BGS						
14	Sample interval @ 4 to 8 ft BGS						
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

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

CHEMICAL ANALYSIS



OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-15-07  
 DATE COMPLETED: July 25, 2007  
 DRILLING METHOD: Direct Push  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE				
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	GROUND SURFACE	596.63					
	NORTHING: 1045760.11 EASTING: 1082032						
2	Cored through ~6" thick concrete floor GP-GRAVEL, with sand, medium dense, coarse grained, dry CL-CLAY, with sand, dense, fine to medium grained, plastic, light brown, slightly moist	596.43 596.13	MC1	X			2.3
4	- with gravel, trace sand, fine to coarse grained, plastic, moist below 4 ft BGS			X			
6			MC2	X			3
8	END OF BOREHOLE @ 7.5ft BGS	589.13	SB-15	X			
10	Auger Refusal @ 7.5 ft BGS						
12	Sample interval @ 4 to 8 ft BGS						
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-16-07  
 DATE COMPLETED: July 26, 2007  
 DRILLING METHOD: Direct Push  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE				
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	GROUND SURFACE	596.58					
	NORTHING: 1045746.76 EASTING: 1081976.1						
2	Cored through ~6" thick concrete floor CL-GRAVELLY CLAY, dense, medium to coarse grained, non-plastic, dark grey, dry - trace gravel, fine grained below 1.5 ft BGS	596.38	MC1	X			7.7
4				X			
6			MC2 SB-16	X			8.4
8				X			
	END OF BOREHOLE @ 8.5ft BGS	588.08					
10	Auger Refusal @ 8.5 ft BGS						
12	Sample interval @ 4 to 8 ft BGS						
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (51 Hayes Place)

HOLE DESIGNATION: SB-17-07  
 DATE COMPLETED: July 27, 2007  
 DRILLING METHOD: HSA  
 FIELD PERSONNEL: R. Nashett

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE				
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	NORTHING: 1045673.33 EASTING: 1082150.51	GROUND SURFACE 601.85					
2	FILL-sand (SP), with gravel, with china, loose, medium to coarse grained, dark grey  - some clay, dark brown, slight odor below 6 ft BGS		SS1	X		24	
4			SS2	X		43	0.6
6			SS3	X		8	
8			SS4	X		16	53.2
10			SB-17	X		6	9.4
12			SS5	X		14	5.4
14			SS6	X		25	5.3
16			SS7	X		>50	
18	CL-CLAY, some gravel, brown, damp, slight odor	591.85	SS8	X			
20	END OF BOREHOLE @ 15.0ft BGS	586.85					
22	Auger Refusal @ 15 ft BGS						
24	Sample interval @ 6 to 10 ft BGS						
26							
28							
30							
32							
34							

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10



# STRATIGRAPHIC LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (20 Hayes Place)

HOLE DESIGNATION: SB-18-08  
 DATE COMPLETED: May 9, 2008  
 DRILLING METHOD: Direct Push  
 FIELD PERSONNEL: J. Polovich

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	SAMPLE				
			NUMBER	INTERVAL	REC (%)	'N' VALUE	PID (ppm)
	GROUND SURFACE	590.99					
	NORTHING: 1045062.59 EASTING: 1081677.53						
0	TOPSOIL	590.69					
0	FILL-SAND, white fibers, dry, no odor	590.19	(SB-18/ MW-13)				1.1
0	BRICK	589.89					
2	CL-SANDY SILTY CLAY, brown, slightly moist, no odor		MC1		28		0.2
4	CL-SILTY CLAY, brown, dense, no odor, very slightly moist	586.99					0.3
6			MC2		100		0.2
8	- silt content increasing with depth below 8 ft BGS						0.2
10			MC3		100		0.2
12		578.69	MC4		100		0.5
12.3	END OF BOREHOLE @ 12.3ft BGS						
14	Auger Refusal @ 12.3 ft BGS						
16	Sample interval @ 0 to 2 ft BGS						

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/4/10





# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

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

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	Monitoring Well	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1045656.54 EASTING: 1082075.64	TOP OF CASING 596.56 GROUND SURFACE 596.42 TOP OF RISER 596.13							
2	GRAVEL, parking lot	595.42	<p><b>WELL DETAILS</b>            Screened interval:            591.42 to 586.42ft AMSL            5.00 to 10.00ft BGS            Length: 5ft            Diameter: 2in            Slot Size: .02            Material: PVC            Seal:            594.42 to 592.42ft AMSL            2.00 to 4.00ft BGS            Material: Bentonite            Sand Pack:            592.42 to 586.42ft AMSL            4.00 to 10.00ft BGS            Material: Size 00N Sand</p>	001 SS1	X	0.3	14	0	
	No Recovery	592.42		SS2	X	0.1	9	0	
4	CH-CLAY, stiff, plastic with added water, massive structure, light brown, dry	592.42		SS3	X	1.3	14	0	
6	- moist below 7 ft BGS			SS4	X	1.8	11		
8				SS5	X	1.6	13		
10				SS6	X	0.3	>50		
12	- Refusal @ 11.3 ft BGS END OF BOREHOLE @ 11.3ft BGS	585.12							
14	Soil samples for chemical analysis from 0.0 to 0.5 and 8.0 to 10.0 feet BGS.								
16									
18									
20									
22									
24									
26									
28									
30									
32									
34									

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

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

CHEMICAL ANALYSIS



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

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 AMSL	Monitoring Well	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
	NORTHING: 1045678.56 EASTING: 1082110.42	TOP OF CASING 596.86 GROUND SURFACE 596.68 TOP OF RISER 596.58						
2	FILL, sand and gravel with trace silt, loose, coarse, no structure, gray to medium brown, dry	595.48	<p>FLUSHMOUNT CASING CONCRETE 2" PVC RISER BENTONITE 2" PVC WELL SCREEN SAND PACK 8" Ø BOREHOLE</p>	020				0
4	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic			021				324 285
6				022				325 4000 325
10	- Refusal @ 10.0 ft BGS END OF BOREHOLE @ 10.0ft BGS	586.68						
12	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.		<p><b>WELL DETAILS</b>            Screened interval:            591.68 to 586.68ft AMSL            5.00 to 10.00ft BGS            Length: 5ft            Diameter: 2in            Slot Size: .02            Material: PVC            Seal:            594.68 to 592.68ft AMSL            2.00 to 4.00ft BGS            Material: Bentonite            Sand Pack:            595.68 to 586.68ft AMSL            1.00 to 10.00ft BGS            Material: Size 00N Sand</p>					

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

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

CHEMICAL ANALYSIS



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site

HOLE DESIGNATION: MW-5A

PROJECT NUMBER: 37191

DATE COMPLETED: December 15, 2008

CLIENT: Hodgson Russ

DRILLING METHOD: HSA/HQ Core

LOCATION: Buffalo, NY

FIELD PERSONNEL: J. Williams

(Former Buffalo China Site)

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1045683.41 EASTING: 1082107.45	GROUND SURFACE 596.83 TOP OF CASING 596.80 TOP OF RISER 596.29							
2  4  6  8  10  12  14  16  18  20  22  24  26  28  30  32  34	Auger without sampling. For overburden stratigraphy, refer to log BH-5-0506/ MW-5.								12.5
	END OF OVERBURDEN HOLE @ 10.5ft BGS	586.33							

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

**NOTES:** MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE  
WATER BEARING ZONE ▼



# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-5A  
 DATE COMPLETED: December 15, 2008  
 DRILLING METHOD: HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	RUN NUMBER	CORE RECOVERY %	RQD %	Vol. Water (gal)
10  12  14  16  18  20  22  24  26  28  30  32  34  36  38  40  42	Auger Refusal - BEDROCK (Not sampled)	586.33  584.33  579.33		1	100	98	20
	LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils - fracture, moderately weathered, ~0.25-inch aperture @ 14.5 feet BGS						
	END OF BOREHOLE @ 17.5ft BGS						

BEDROCK LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

**NOTES:** MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE  
 WATER BEARING ZONE ▼



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

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 AMSL	Monitoring Well	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	"N" VALUE	PID (ppm)
	NORTHING: 1045600.18 EASTING: 1081969.89	TOP OF CASING 594.40 GROUND SURFACE 594.31 TOP OF RISER 594.15						
2	FILL, sand and gravel with trace silt, loose, coarse, no structure, gray to medium brown, dry	593.31	<p style="font-size: small;">FLUSHMOUNT CASING CONCRETE 2"Ø PVC RISER BENTONITE  WELL SCREEN SAND PACK 8" Ø BOREHOLE</p>	027				0
	FILL, clay and red brick, slightly plastic, no structure, medium brown and red, dry to slightly damp	591.51		028				
4	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic			029				
10	- Refusal @ 9.7 ft BGS END OF BOREHOLE @ 9.7ft BGS	584.61						
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.		<p><u>WELL DETAILS</u>            Screened interval:            589.61 to 584.61ft AMSL            4.70 to 9.70ft BGS            Length: 5ft            Diameter: 2in            Slot Size: .02            Material: PVC            Seal:            592.61 to 590.61ft AMSL            1.70 to 3.70ft BGS            Material: Bentonite            Sand Pack:            590.61 to 584.61ft AMSL            3.70 to 9.70ft BGS            Material: Size 00N Sand</p>					
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

OVERBURDEN LOG 37191 GPJ CRA CORP.GDT. 2/23/10

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

CHEMICAL ANALYSIS



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-6A  
 DATE COMPLETED: June 3, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1045603.01 EASTING: 1081967.92	TOP OF CASING 594.58 GROUND SURFACE 594.44 TOP OF RISER 594.15							
2	ML-SILT, roots and vegetation, dark brown, moist (TOPSOIL)	594.24	<p style="font-size: small;">FLUSHMOUNT CASING CONCRETE 4"Ø STEEL WELL RISER CEMENT/BENTONITE GROUT 8"Ø BOREHOLE</p>	SS1	X	1.0	15	0	
4	ML-SILT, some fine sand, little angular gravel, gray-brown, dry (FILL) - becoming moist @ 0.7 ft BGS - red brick between between 0.9 and 1 ft BGS			SS2	X	0.8	12	0	
6	CL-CLAY, little silt, stiff, brown with yellow mottling, moist (NATIVE)	590.44		SS3	X	1.7	11	0	
8				SS4	X	2.0	18	1.0	
10	ML-SILT, some clay, little fine sand and gravel, soft, brown, wet (TILL)	585.64		SS5	X	2.0	10	0	
12	NOT SAMPLED -Auger Refusal - bedrock encountered @ 10.1 ft BGS END OF OVERBURDEN HOLE @ 10.1ft BGS	584.44 584.34							
14									
16									
18									
20									
22									
24									
26									
28									
30									
32									
34									

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

**NOTES:** MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE  
 WATER FOUND ▼ WATER BEARING ZONE ▼  
 CHEMICAL ANALYSIS ○



# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-6A  
 DATE COMPLETED: June 3, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	RUN NUMBER	CORE RECOVERY %	RQD %	Vol. Water (gal)
10	ML-SILT, some clay, little fine sand and gravel, soft, brown, wet (TILL) NOT SAMPLED -Auger Refusal - bedrock encountered @ 10.1 ft BGS	585.64 584.44 584.34					
12	BEDROCK (Not sampled)	582.34					
14	LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils			1	100	86	0
16							
18							
20	- fracture, moderately weathered, bedding plane parallel below 19.5 ft BGS			2	100	90	60
22	END OF BOREHOLE @ 21.4ft BGS	573.04					
24							
26							
28							
30							
32							
34							
36							
38							
40							
42							

BEDROCK LOG 37191.GPJ CRA CORP.GDT 2/23/10

**NOTES:** MEASURING POINT ELEVATIONS MAY CHANGE. REFER TO CURRENT ELEVATION TABLE  
 WATER FOUND ▼ WATER BEARING ZONE ▼  
 CHEMICAL ANALYSIS ○



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

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 AMSL	Monitoring Well	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
	NORTHING: 1045333.81 EASTING: 1082122.73	TOP OF CASING 592.61 GROUND SURFACE 592.48 TOP OF RISER 592.03						
2	FILL, clay and red brick, slightly plastic, no structure, medium brown and red, dry to slightly damp		<p>FLUSHMOUNT CASING CONCRETE 2"Ø PVC RISER BENTONITE WELL SCREEN SAND PACK 8" Ø BOREHOLE</p>	030				0
4	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic	589.48		031				0
6								0
8	- Refusal @ 8.7 ft BGS END OF BOREHOLE @ 8.7ft BGS	583.78						
10	Soil samples for chemical analysis from 0.5 to 1.5 and 2.5 to 3.0 feet BGS. Well installed through HSA.		<p><u>WELL DETAILS</u>          Screened interval:          588.78 to 583.78ft AMSL          3.70 to 8.70ft BGS          Length: 5ft          Diameter: 2in          Slot Size: .02          Material: PVC          Seal:          590.78 to 589.28ft AMSL          1.70 to 3.20ft BGS          Material: Bentonite          Sand Pack:          589.28 to 583.78ft AMSL          3.20 to 8.70ft BGS          Material: Size 00N Sand</p>					
12								
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22								
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28								
30								
32								
34								

OVERBURDEN LOG 37191 GPJ - CRA\_CORP.GDT 2/23/10

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

CHEMICAL ANALYSIS





# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site

HOLE DESIGNATION: MW-7A

PROJECT NUMBER: 37191

DATE COMPLETED: December 12, 2008

CLIENT: Hodgson Russ

DRILLING METHOD: HSA/HQ Core

LOCATION: Buffalo, NY

FIELD PERSONNEL: J. Williams

(Former Buffalo China Site)

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
	NORTHING: 1045338.18 EASTING: 1082119.63	TOP OF CASING 592.68 GROUND SURFACE 592.54 TOP OF RISER 592.31						
2	Auger without sampling. For overburden stratigraphy, refer to log BH-14-0506/ MW-7.							0.9
4								
6								
8								
10		END OF OVERBURDEN HOLE @ 9.1ft BGS		583.44				
12								
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 WATER BEARING ZONE ▼								

OVERBURDEN LOG: 37191.GPJ\_CRA\_CORP.GDT\_2/23/10



# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-7A  
 DATE COMPLETED: December 12, 2008  
 DRILLING METHOD: HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	RUN NUMBER	CORE RECOVERY %	RQD %	Vol. Water (gal)
10	Auger Refusal - BEDROCK (Not sampled)	583.44					
12	LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils	581.44					
14	- fracture, moderately weathered @ 14.5 feet BGS			1	92	90	20
16	END OF BOREHOLE @ 16.1ft BGS	576.44					
18							
20							
22							
24							
26							
28							
30							
32							
34							
36							
38							
40							
42							

BEDROCK LOG 37191.GPJ CRA CORP.GDT 2/23/10

**NOTES:** MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE  
 WATER BEARING ZONE ▼



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

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

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	Monitoring Well	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
	NORTHING: 1045332.04 EASTING: 1082477.03	TOP OF CASING 594.61 GROUND SURFACE 594.49 TOP OF RISER 594.00						
2	FILL, sand and gravel with trace silt, loose, coarse, no structure, gray to medium brown, dry		<p><b>WELL DETAILS</b>            Screened interval:            590.99 to 585.99ft AMSL            3.50 to 8.50ft BGS            Length: 5ft            Diameter: 2in            Slot Size: .02            Material: PVC            Seal:            592.99 to 591.19ft AMSL            1.50 to 3.30ft BGS            Material: Bentonite            Sand Pack:            591.19 to 585.99ft AMSL            3.30 to 8.50ft BGS            Material: Size 00N Sand</p>	007				0
4	CL-CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic	591.49		008				0
6								
8	Not Sampled	586.99						
12	CH-CLAY, stiff, plastic with added water, massive structure, light brown, dry	582.49		SS1				5
14				SS2				4
16	- Refusal @ 16.9 ft BGS		SS3				>50	
18	END OF BOREHOLE @ 16.9ft BGS	577.59						
20	Soil samples for chemical analysis from 1.5 to 2.0 and 3.0 to 3.5 feet BGS. Well installed through HSA.							
22								
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28								
30								
32								
34								

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

CHEMICAL ANALYSIS

OVERBURDEN LOG 37191.GPJ CRA CORP.GDT 2/23/10



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

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 AMSL	Monitoring Well	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
	NORTHING: 1045861.83 EASTING: 1082141	TOP OF CASING: 595.12 TOP OF RISER: 594.81 GROUND SURFACE: 594.66						
2	FIL- sand and gravel, non-plastic, no structure, medium brown to gray, damp, loose	592.26	<p><b>WELL DETAILS</b>            Screened interval:            592.66 to 587.66ft AMSL            2.00 to 7.00ft BGS            Length: 5ft            Diameter: 2in            Slot Size: .02            Material: PVC            Seal:            593.66 to 593.16ft AMSL            1.00 to 1.50ft BGS            Material: Bentonite            Sand Pack:            593.16 to 587.66ft AMSL            1.50 to 7.00ft BGS            Material: Size 00N Sand</p>	023			0	
4	FILL- sand, well sorted fine grained, loose, medium to dark brown, damp	591.56		024			0	
6	CL- CLAY with SILT, stiff, vertical gray mottling within orange brown, black nodules, moderately plastic						0	
8	- Refusal @ 7.5 ft BGS END OF BOREHOLE @ 7.5ft BGS	587.16						
10	Soil samples for chemical analysis from 0.5 to 1.0 and 2.0 to 2.4 feet BGS. Well installed through HSA.							
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30								
32								
34								

OVERBURDEN LOG 37191.GPJ CRA CORP.GDT 2/23/10

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

CHEMICAL ANALYSIS





# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-9A  
 DATE COMPLETED: December 15, 2008  
 DRILLING METHOD: HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	RUN NUMBER	CORE RECOVERY %	RQD %	Vol. Water (gal)	
8	Auger Refusal - BEDROCK (Not sampled)	587.78	<p style="font-size: small;">8" BOREHOLE 6" ROCK SOCKET 4" COREHOLE</p>					
10	LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils	585.78			1	106	106	0
18					2	96	100	0
22					3	100	100	0
26	- fracture, moderately weathered, ~0.25-inch aperture @ 25.5 feet BGS		▼	4	100	96	25	
28	END OF BOREHOLE @ 27.0ft BGS	567.98						
30								
32								
34								
36								
38								
40								

BEDROCK LOG 37191.GPJ CRA CORP.GDT 2/23/10

**NOTES:** MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE  
 WATER BEARING ZONE ▼



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (118 Harrison Street)

HOLE DESIGNATION: MW-10  
 DATE COMPLETED: August 12, 2008  
 DRILLING METHOD: Direct Push/HSA  
 FIELD PERSONNEL: C. Barton

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1045981.14 EASTING: 1081729.8	TOP OF CASING 596.82 GROUND SURFACE 596.75 TOP OF RISER 596.45							
0	TOPSOIL	596.45	<p><b>WELL DETAILS</b>            Screened interval:            592.25 to 587.25ft AMSL            4.50 to 9.50ft BGS            Length: 5ft            Diameter: 2in            Slot Size: 0.010            Material: PVC            Seal:            596.75 to 594.25ft AMSL            0.00 to 2.50ft BGS            Material: BENTONITE            Sand Pack:            594.25 to 587.25ft AMSL            2.50 to 9.50ft BGS            Material: SAND</p>						
2	CLS-SANDY CLAY, brown, damp			SS1	4.0			0	
4	- trace gravel below 4 ft BGS			SS2	1.5			0	
8	SC-CLAYEY SAND, some gravel, brown-gray, wet	588.75							
10	END OF BOREHOLE @ 9.8ft BGS	586.95							
12	Auger Refusal @ 9.8 ft BGS								
14									
16									
18									
20									
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24									
26									
28									
30									
32									
34									
<p><b>NOTES:</b> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE            WATER FOUND ▼</p>									

OVERBURDEN LOG 37191.GPJ CRA CORP GDT 2/23/10



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (ROW Behind 141 Milton St)

HOLE DESIGNATION: MW-11  
 DATE COMPLETED: August 12, 2008  
 DRILLING METHOD: Direct Push/HSA  
 FIELD PERSONNEL: C. Barton

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1045821.59 EASTING: 1081985.27	TOP OF CASING: 595.23 GROUND SURFACE: 595.11 TOP OF RISER: 595.04							
2	BRICK, red	594.11	<p><b>WELL DETAILS</b>            Screened interval:            591.01 to 586.01ft AMSL            4.10 to 9.10ft BGS            Length: 5ft            Diameter: 2in            Slot Size: 0.010            Material: PVC            Seal:            594.51 to 593.01ft AMSL            0.60 to 2.10ft BGS            Material: BENTONITE            Sand Pack:            593.01 to 586.01ft AMSL            2.10 to 9.10ft BGS            Material: SAND</p>						
	GW-SANDY GRAVEL, brown, dry	593.81		SS1	3.0			0	
4	CLS-SANDY CLAY, brown, damp							0	
6	- soft, moist below 7 ft BGS			SS2	4.0			0	
8								0.1	
10	SC-CLAYEY SAND, some gravel, wet	586.61		SS3	1.1			2.8	
	END OF BOREHOLE @ 9.1ft BGS	586.01							
12	Auger Refusal @ 9.1 ft BGS								
14									
16									
18									
20									
22									
24									
26									
28									
30									
32									
34									
<p><b>NOTES:</b> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE            WATER FOUND ▼</p>									

OVERBURDEN LOG 37191.GPJ\_CRA\_CORP.GDT 2/23/10





# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: SB-6-07/ MW-12  
 DATE COMPLETED: July 30, 2007  
 DRILLING METHOD: HSA  
 FIELD PERSONNEL: C. Barton

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
	NORTHING: 1045706.37 EASTING: 1082130.81	TOP OF CASING: 599.94 TOP OF RISER: 599.83 GROUND SURFACE: 597.40	<p>STEEL PROTECTIVE CASING BENTONITE GROUT BENTONITE CHIPS 2" PVC WELL RISER 4" BOREHOLE 2" PVC WELL SCREEN SAND PACK</p>					
2	FILL, sand, some fine gravel, brown, dry  - some glass, trace gravel, black below 2 ft BGS			SS1	2.0	23	21.2	
4	CLS-SANDY CLAY, trace fine gravel, brown, damp  - piece of wood @ 6 ft BGS	593.40	SS2	2.0	13	50.9		
6			SS3	2.0	13	18.7		
8			SS4	2.0	23	162		
10	END OF BOREHOLE @ 10.4ft BGS	587.00	SS5	2.0	30	372		
12	Auger Refusal @ 10.4 ft BGS		SS6	0.4	>50	386		
14	Sample interval @ 6 to 10.4 ft BGS							
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18								
20								
22								
24								
26								
28								
30								
32								
34								

**WELL DETAILS**  
 Screened interval:  
 592.00 to 587.00ft AMSL  
 5.40 to 10.40ft BGS  
 Length: 5ft  
 Diameter: 2in  
 Slot Size: 0.010  
 Material: PVC  
 Seal:  
 595.40 to 594.00ft AMSL  
 2.00 to 3.40ft BGS  
 Material: Bentonite  
 Sand Pack:  
 594.00 to 587.00ft AMSL  
 3.40 to 10.40ft BGS  
 Material: SAND

OVERBURDEN LOG: 37191.GPJ CRA\_CORP.GDT 2/23/10

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

CHEMICAL ANALYSIS



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site

HOLE DESIGNATION: SB-18-07/ MW-13

PROJECT NUMBER: 37191

DATE COMPLETED: July 30, 2007

CLIENT: Hodgson Russ

DRILLING METHOD: HSA

LOCATION: Buffalo, NY

FIELD PERSONNEL: C. Barton

(Former Buffalo China Site)

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	N' VALUE	P/D (ppm)
	NORTHING: 1045678.31 EASTING: 1081889.55	TOP OF CASING 595.12 GROUND SURFACE 594.89 TOP OF RISER 594.83						
2	SP-SAND, some fine gravel, brown, dry		<p style="font-size: small;">FLUSHMOUNT CASING CONCRETE BENTONITE GROUT 2" PVC WELL RISER 4" BOREHOLE 2" PVC WELL SCREEN SAND PACK</p>	SS1	X	1.0	13	0.8
4	SC-CLAYEY SAND, some fine gravel, brown	592.89		SS2	X	2.0	12	0.5
6	CLS-SANDY CLAY, damp	590.89		SS3	X	2.0	17	0
8	END OF BOREHOLE @ 7.2ft BGS	587.69		SS4	X	1.2	>50	0
10	Auger Refusal @ 7.2 ft BGS		<p><b>WELL DETAILS</b>            Screened interval:            592.69 to 587.69ft AMSL            2.20 to 7.20ft BGS            Length: 5ft            Diameter: 2in            Slot Size: 0.02            Material: PVC            Sand Pack:            594.69 to 587.69ft AMSL            0.20 to 7.20ft BGS            Material: SAND</p>					
12	Sample interval @ 4 to 7.2 ft BGS							
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								
<p><b>NOTES:</b> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE</p> <p>CHEMICAL ANALYSIS <span style="border: 1px solid black; border-radius: 50%; padding: 2px;"> </span></p>								

OVERBURDEN LOG, 37191.GPJ, CRA\_CORP.GDT, 2/23/10





# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-13A  
 DATE COMPLETED: December 15, 2008  
 DRILLING METHOD: HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	RUN NUMBER	CORE RECOVERY %	ROD %	Vol. Water (gal)
8	Auger Refusal - BEDROCK (Not sampled)	586.91	<p style="font-size: small;">8" BOREHOLE 6" ROCK SOCKET 4" COREHOLE</p>				
10	LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils	584.91					
12				1	100	88	30
14	END OF BOREHOLE @ 14.9ft BGS	579.91					
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							
36							
38							
40							

BEDROCK LOG 37191.GPJ\_GRA\_CORP.GDT 2/23/10

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



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (103 Harrison Street)

HOLE DESIGNATION: MW-14  
 DATE COMPLETED: May 8, 2008  
 DRILLING METHOD: Direct Push  
 FIELD PERSONNEL: J. Polovich

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	"N" VALUE	PID (ppm)
	NORTHING: 1045590.78 EASTING: 1081690.35	TOP OF CASING 593.51 GROUND SURFACE 593.51 TOP OF RISER 593.15						
0	TOPSOIL, black, moist, organics	592.71	<p><b>WELL DETAILS</b>            Screened interval:            589.31 to 584.31ft AMSL            4.20 to 9.20ft BGS            Length: 5ft            Diameter: 2in            Slot Size: 0.010            Material: PVC            Sand Pack:            591.51 to 584.31ft AMSL            2.00 to 9.20ft BGS            Material: SAND</p>					
2	CL-SANDY SILTY CLAY, brown, slightly moist, dense, minor sand lenses			MC1	3.6		11.8	
4							3.4	
6			MC2	4.0		3.6		
8						4.6		
9.2	END OF BOREHOLE @ 9.2ft BGS	584.31	MC3	1.2		2.4		
12	Auger Refusal @ 9.2 ft BGS							
12	Sample interval @ 0 to 2 ft BGS							

OVERBURDEN LOG: 37191.GPJ CRA\_CORP.GDT 2/23/10

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

CHEMICAL ANALYSIS



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site

HOLE DESIGNATION: MW-14A

PROJECT NUMBER: 37191

DATE COMPLETED: December 16, 2008

CLIENT: Hodgson Russ

DRILLING METHOD: HSA/HQ Core

LOCATION: Buffalo, NY

FIELD PERSONNEL: J. Williams

(103 Harrison Street)

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE			
				NUMBER	INTERVAL	REC (ft)	'N' VALUE
	NORTHING: 1045585.17 EASTING: 1081683.81	TOP OF CASING 593.77 GROUND SURFACE 593.65 TOP OF RISER 593.37					
2	Auger without sampling. For overburden stratigraphy, refer to log MW-14.						
4							
6							
8							
10							
12							
14							
16	END OF OVERBURDEN HOLE @ 8.6ft BGS	585.05					
18							
20							
22							
24							
26							
28							
30							
32							
34							

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

**NOTES:** MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE  
WATER BEARING ZONE ▼



# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (103 Harrison Street)

HOLE DESIGNATION: MW-14A  
 DATE COMPLETED: December 16, 2008  
 DRILLING METHOD: HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	RUN NUMBER	CORE RECOVERY %	ROD %	Vol. Water (gal)	
8								
10	Auger Refusal - BEDROCK (Not sampled)	585.05						
12	LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils  - fracture, moderately weathered, ~0.25-inch aperture @ 13.2 feet BGS	583.45			1	99	95	35
14	END OF BOREHOLE @ 15.2ft BGS	578.45						
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								
36								
38								
40								

BEDROCK LOG 37191.GPJ\_CRA\_CORP.GDT 2/23/10

**NOTES:** MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE  
 WATER BEARING ZONE ▼



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (58 Lester Street)

HOLE DESIGNATION: MW-15  
 DATE COMPLETED: May 8, 2008  
 DRILLING METHOD: Direct Push/HSA  
 FIELD PERSONNEL: J. Polovich

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
	NORTHING: 1045417.13 EASTING: 1081871.04	TOP OF CASING 592.86 GROUND SURFACE 592.73 TOP OF RISER 592.49						
2	TOPSOIL, black, moist, organics present, loose - white fibrous material at contact of topsoil and clay @ 0.4 ft BGS	592.33	<p><b>WELL DETAILS</b>            Screened interval:            589.93 to 584.93ft AMSL            2.80 to 7.80ft BGS            Length: 5ft            Diameter: 2in            Slot Size: 0.010            Material: PVC            Sand Pack:            591.93 to 584.93ft AMSL            0.80 to 7.80ft BGS            Material: SAND</p>	MC1	0.8		0.6 0-0.2	
4	FILL-SILTY SANDY CLAY, dark brown, organics present (wood, roots), bits of brick, pockets of sand, small rock fragments, no odor - dense, small rock fragments, slightly moist below 0.8 ft BGS			MC2	3.8		0-0.4	
8	END OF BOREHOLE @ 7.8ft BGS	584.93					0-0.2	
10	Auger Refusal @ 7.8 ft BGS							
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								
<b>NOTES:</b> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE								

OVERBURDEN LOG: 37191.GPJ CRA CORP GDT 2/23/10







# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (58 Lester Street)

HOLE DESIGNATION: MW-15A  
 DATE COMPLETED: December 12, 2008  
 DRILLING METHOD: HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	RUN NUMBER	CORE RECOVERY %	RQD %	Vol. Water (gal)
8	Auger Refusal - BEDROCK (Not sampled)	584.92					
10	LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils - fracture, slightly weathered, ~0.25-inch aperture @ 10.5 feet BGS	582.92		1	93	87	50
14	END OF BOREHOLE @ 14.4ft BGS	578.42					
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							
36							
38							
40							

BEDROCK LOG 37191.GPJ\_CRA\_CORP.GDT 2/23/10

**NOTES:** MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE  
 WATER BEARING ZONE ↓



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (36 Lester Street)

HOLE DESIGNATION: MW-16  
 DATE COMPLETED: May 8, 2008  
 DRILLING METHOD: Direct Push/HSA  
 FIELD PERSONNEL: J. Polovich

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1045299.62 EASTING: 1081663.63	TOP OF CASING 592.10 GROUND SURFACE 592.10 TOP OF RISER 591.74							
2	TOPSOIL - brick fragments @ 0.3 ft BGS CL-SILTY SANDY CLAY, brown, slightly moist, minor sand lenses, no odor	591.80	<p style="font-size: small;">             FLUSHMOUNT CASING              CONCRETE BENTONITE GROUT              BENTONITE CHIPS              2" PVC WELL RISER              4" BOREHOLE              2" PVC WELL SCREEN              SAND PACK           </p>	MC1	3.3			0-1.6	
4				MC2	4.0			0-0.9	
6				MC3	3.1			0-0.6	
10	CL-CLAY, gray, moist, soft, malleable, no odor	583.00						2.6	
12	END OF BOREHOLE @ 11.1ft BGS	581.00						0-0.6	
14	Auger Refusal @ 11.1 ft BGS								
16									
18									
20									
22									
24									
26									
28									
30									
32									
34									

**WELL DETAILS**  
 Screened interval:  
 586.00 to 581.00ft AMSL  
 6.10 to 11.10ft BGS  
 Length: 5R  
 Diameter: 2in  
 Slot Size: 0.010  
 Material: PVC  
 Sand Pack:  
 588.00 to 581.00ft AMSL  
 4.10 to 11.10ft BGS  
 Material: SAND

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

OVERBURDEN LOG, 37191.GPJ, CRA, CORP.GDT, 2/23/10



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (34 Hayes Place)

HOLE DESIGNATION: MW-17  
 DATE COMPLETED: May 9, 2008  
 DRILLING METHOD: Direct Push/HSA  
 FIELD PERSONNEL: J. Polovich

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1045150.92 EASTING: 1081876.49	TOP OF CASING 592.80 GROUND SURFACE 592.80 TOP OF RISER 592.58							
	TOPSOIL	592.70	<p><b>WELL DETAILS</b>            Screened interval:            586.10 to 581.10ft AMSL            6.70 to 11.70ft BGS            Length: 5ft            Diameter: 2in            Slot Size: 0.010            Material: PVC            Sand Pack:            588.10 to 581.10ft AMSL            4.70 to 11.70ft BGS            Material: SAND</p>						
	FILL (GRAVEL)	591.80							
2	FILL-SAND, fine grained, brown, slightly moist, no odor	590.80		MC1	3.1			1.4	
4	CL-SILTY CLAY, brown, very slightly moist, dense, no odor							0.3	
6				MC2	4.0			0.2	
8								0.2	
10	CL-SANDY CLAY, fine to medium grained, brown, moist, soft, no odor	584.60						0.2	
12	CL-CLAY, gray, moist, soft, malleable, no odor	582.30		MC3	3.7			0.2	
14	END OF BOREHOLE @ 11.7ft BGS	581.10							
16	Auger Refusal @ 11.7 ft BGS								
18	Sample interval @ 0 to 2 ft BGS								

OVERBURDEN LOG: 37191.GPJ CRA\_CORP.GDT 2/23/10

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

CHEMICAL ANALYSIS



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-18  
 DATE COMPLETED: December 9, 2008  
 DRILLING METHOD: HSA  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1045744.51 EASTING: 1082035.77	GROUND SURFACE 596.62 TOP OF CASING 596.56 TOP OF RISER 596.13							
2	CONCRETE Auger without sampling. For overburden stratigraphy, refer to log SB-15-07.	596.12	<p style="font-size: small;">FLUSHMOUNT CASING CONCRETE BENTONITE CHIPS 2"Ø PVC WELL RISER 8"Ø BOREHOLE 2"Ø PVC WELL SCREEN SAND PACK</p>						
10	- Auger Refusal - BEDROCK (Not sampled) @ 10.2 END OF BOREHOLE @ 10.2ft BGS	586.42							0.3
12			<p><u>WELL DETAILS</u>            Screened interval:            591.42 to 586.42ft AMSL            5.20 to 10.20ft BGS            Length: 5ft            Diameter: 2in            Slot Size: 0.010            Material: PVC            Seal:            595.12 to 593.62ft AMSL            1.50 to 3.00ft BGS            Material: Bentonite            Sand Pack:            593.62 to 586.42ft AMSL            3.00 to 10.20ft BGS            Material: Size 00N Sand</p>						
14									
16									
18									
20									
22									
24									
26									
28									
30									
32									
34									

OVERBURDEN LOG, 37191, GPJ, CRA, CORP, GDT, 2/23/10

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



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site

HOLE DESIGNATION: MW-18A

PROJECT NUMBER: 37191

DATE COMPLETED: May 29, 2009

CLIENT: Hodgson Russ

DRILLING METHOD: 6.25 HSA/HQ Core

LOCATION: Buffalo, NY

FIELD PERSONNEL: J. Williams

(Former Buffalo China Site)

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITOR INSTALLATION	SAMPLE			
				NUMBER	INTERVAL	REC (ft)	'N' VALUE
	NORTHING: 1045740.8 EASTING: 1082030.73	GROUND SURFACE 596.62 TOP OF CASING 596.62 TOP OF RISER 596.35					
2	NOT SAMPLED-augered without sampling.		<p>FLUSHMOUNT CASING CONCRETE 4" STEEL WELL RISER CEMENT/BENTONITE GROUT 8" Ø BOREHOLE</p>				
4							
6							
8							
10	- Auger Refusal - bedrock encountered @ 10.1 ft BGS END OF OVERBURDEN HOLE @ 10.1ft BGS	586.52					
12							
14							
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							

OVERBURDEN LOG 37191.GPJ - CRA CORP.GDT. 2/23/10

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



# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-18A  
 DATE COMPLETED: May 29, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITOR INSTALLATION	RUN NUMBER	CORE RECOVERY %	RQD %	Vol. Water (gal)
10	- Auger Refusal - bedrock encountered @ 10.1 ft BGS	586.52	<p style="margin-left: 20px;">6" ROCK SOCKET</p> <p style="margin-left: 20px;">4" COREHOLE</p>				
12	BEDROCK (Not sampled) LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils	585.62		1	100	84	10
16	END OF BOREHOLE @ 16.0ft BGS	580.62					
18							
20							
22							
24							
26							
28							
30							
32							
34							
36							
38							
40							
42							

BEDROCK LOG 37191.GPJ CRA\_CORRP.GDT 2/23/10

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



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-19  
 DATE COMPLETED: June 4, 2009  
 DRILLING METHOD: 4.25 HSA  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1045627.31 EASTING: 1082167.47	TOP OF CASING 594.12 GROUND SURFACE 594.12 TOP OF RISER 593.68							
	ASPHALT	593.92 593.52	<p><b>WELL DETAILS</b>            Screened interval:            591.32 to 586.32ft AMSL            2.80 to 7.80ft BGS            Length: 5ft            Diameter: 2in            Slot Size: 0.010            Material: PVC            Seal:            593.12 to 592.12ft AMSL            1.00 to 2.00ft BGS            Material: Bentonite            Sand Pack:            592.12 to 586.32ft AMSL            2.00 to 7.80ft BGS            Material: Size 00N Sand</p>						
2	ML-SILT, some fine sand and gravel, brown, gray, dry (FILL)			SS1	X	1.5	13	1.5	
4	CL-CLAY, little silt, stiff, brown with yellow mottling, dry to moist (NATIVE) - medium plasticity, becoming very moist below 3 ft BGS			SS2	X	1.8	12	3.0	
6	ML-SILT, some fine sand, little clay and gravel, tan, brown, moist to wet (TILL)	589.12		SS3	X	2.0	12	1.3	
8	NOT SAMPLED END OF BOREHOLE @ 7.8ft BGS	586.42 586.32	SS4	X	1.5	37	56.1		
10	Auger Refusal @ 7.8 ft BGS								
12									
14									
16									
18									
20									
22									
24									
26									
28									
30									
32									
34									

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

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

CHEMICAL ANALYSIS





# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-19A  
 DATE COMPLETED: June 4, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1045625.13 EASTING: 1082162.59	TOP OF CASING 594.26 GROUND SURFACE 594.20 TOP OF RISER 593.82							
	ASPHALT	594.00 593.50	<p>FLUSHMOUNT CASING CONCRETE 4" STEEL WELL RISER CEMENT/BENTONITE GROUT 8" Ø BOREHOLE</p>						
2	ML-SILT, some fine to medium sand and gravel, gray, brown, dry (FILL) CL-CLAY, little silt, stiff, brown with yellow mottling, moist (NATIVE)			SS1	X	1.5	10	5.5	
4				SS2	X	1.7	9	15.0	
6	ML-SILT, some fine sand and clay, trace gravel, soft, tan, brown, very moist (TILL) - wet below 7 ft BGS	589.30		SS3	X	1.7	19	3.7	
8	NOT SAMPLED -Auger Refusal - bedrock encountered @ 8 ft BGS END OF OVERBURDEN HOLE @ 8.0ft BGS	586.30 586.20		SS4	X		11	231	
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									
30									
32									
34									

OVERBURDEN LOG: 37191.GPJ CRA CORP GDT: 2/23/10

**NOTES:** MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE  
 WATER FOUND  $\nabla$   
 CHEMICAL ANALYSIS  $\bigcirc$



# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-19A  
 DATE COMPLETED: June 4, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	RUN NUMBER	CORE RECOVERY %	ROD %	Vol. Water (gal)
8	- wet below 7 ft BGS  NOT SAMPLED - Auger Refusal - bedrock encountered @ 8 ft BGS	586.30 586.20					
10	BEDROCK (Not sampled) LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils	584.10		1	96	92	0
18				2	104	94	0
24				3	100	90	30
26	END OF BOREHOLE @ 25.1ft BGS	569.10					

BEDROCK LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

**NOTES:** MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE  
 WATER FOUND   
 CHEMICAL ANALYSIS



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-20  
 DATE COMPLETED: June 3, 2009  
 DRILLING METHOD: 4.25 HSA  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
	NORTHING: 1045528.85 EASTING: 1082031.52	TOP OF CASING 593.65 GROUND SURFACE 593.59 TOP OF RISER 593.32						
2	ML-SILT, some angular gravel, brown, gray, dry (TOPSOIL/FILL)	593.29	<p>FLUSHMOUNT CASING CONCRETE CEMENT GROUT BENTONITE CHIPS 2"Ø PVC WELL RISER 8"Ø BOREHOLE 2"Ø PVC WELL SCREEN SAND PACK</p>	SS1	X	0.5	20	0
	ML-SILT, some angular gravel, brown, gray, dry (FILL)	591.39		SS2	X	1.5	6	0.4
4	CL-CLAY, little silt, stiff, brown with yellow mottling, moist (NATIVE)			SS3	X	0.1	15	0.3
6				SS4	X	2.0	13	0.2
8	ML-SILT, some fine sand, little gravel, dense, brown, moist to wet (TILL)	585.79		SS5	X	1.0	>50	
8	Auger Refusal @ 8.8 ft BGS	584.79						
10	END OF BOREHOLE @ 8.8ft BGS							
12								
14								
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								

**WELL DETAILS**  
 Screened interval:  
 589.79 to 584.79ft AMSL  
 3.80 to 8.80ft BGS  
 Length: 5ft  
 Diameter: 2in  
 Slot Size: 0.010  
 Material: PVC  
 Seal:  
 591.09 to 584.79ft AMSL  
 2.50 to 8.80ft BGS  
 Material: Bentonite  
 Sand Pack:  
 592.09 to 591.09ft AMSL  
 1.50 to 2.50ft BGS  
 Material: Size 00N Sand

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

CHEMICAL ANALYSIS  

OVERBURDEN LOG 37191.GPJ CRA CORP.GDT 2/23/10



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-20A  
 DATE COMPLETED: June 3, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1045522.91 EASTING: 1082033.31	GROUND SURFACE 593.51 TOP OF CASING 593.51 TOP OF RISER 593.06							
2	ML-SILT, some angular gravel and roots, brown, dry (TOPSOIL)	593.31		SS1	X	1.3	12	0	
	ML-SILT, some angular gravel, gray, brown, dry (FILL)			SS2	X	1.2	7	0	
4	CL-CLAY, little silt, stiff, brown with yellow mottling, moist (NATIVE)	591.11		SS3	X	1.7	16	0	
6	ML-SILT, some fine sand, little gravel, dense, brown, moist to wet (TILL)	587.41		SS4	X	1.7	10	0	
8	- Auger Refusal - bedrock encountered @ 8.2 ft BGS	585.31		SS5	X	>50		0	
	END OF OVERBURDEN HOLE @ 8.2ft BGS								
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									
30									
32									
34									

OVERBURDEN LOG 37191.GPJ CRA CORP.GDT 2/23/10

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

CHEMICAL ANALYSIS



# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-20A  
 DATE COMPLETED: June 3, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	RUN NUMBER	CORE RECOVERY %	RCD %	Vol. Water (gal)
8	ML-SILT, some fine sand, little gravel, dense, brown, moist to wet (TILL) - Auger Refusal - bedrock encountered @ 8.2 ft BGS BEDROCK (Not sampled)	587.41 585.31	8" BOREHOLE 6" ROCK SOCKET				
10	LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils	583.41		1	100	95	0
16			4" COREHOLE	2	100	90	30
20	END OF BOREHOLE @ 19.1ft BGS	574.41					

BEDROCK LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

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

CHEMICAL ANALYSIS



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-21A  
 DATE COMPLETED: June 4, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1045631.4 EASTING: 1082238.77	TOP OF CASING 591.42 GROUND SURFACE 591.28 TOP OF RISER 590.98							
2	GM-GRAVEL, some silt, angular, loose, gray, wet (FILL) FILL-china fragments, white CL-CLAY, little silt, stiff, brown, moist (NATIVE)	590.88 590.58		SS1	X	1.2	7	0	
4	ML-SILT, some clay, little gravel, dense, brown, moist (TILL) - rock fragments below 4.1 ft BGS	587.68 587.08 586.88		SS2	X	1.7	16	0	
6	NOT SAMPLED -Auger Refusal - bedrock encountered @ 4.4 ft BGS END OF OVERBURDEN HOLE @ 4.4ft BGS			SS3	X	0.2	>50	0	
8									
10									
12									
14									
16									
18									
20									
22									
24									
26									
28									
30									
32									
34									

OVERBURDEN LOG: 37191.GPJ CRA\_CORP.GDT\_2/23/10

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

WATER BEARING ZONE ▼

CHEMICAL ANALYSIS ○



# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (Former Buffalo China Site)

HOLE DESIGNATION: MW-21A  
 DATE COMPLETED: June 4, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	RUN NUMBER	CORE RECOVERY %	RQD %	Vol. Water (gal)	
4	ML-SILT, some clay, little gravel, dense, brown, moist (TILL) - rock fragments below 4.1 ft BGS	587.68 587.08 586.88	<p>CEMENT/ BENTONITE GROUT 8"Ø BOREHOLE 6"Ø ROCK SOCKET 4"Ø COREHOLE</p>					
6	NOT SAMPLED -Auger Refusal - bedrock encountered @ 4.4 ft BGS	585.28			1	100	100	0
8	BEDROCK (Not sampled) LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils				2	99	86	0
10					3	100	92	0
12								
14								
16								
18								
20	- fracture, moderately weathered, bedding plane parallel below 20.5 ft BGS		▼	4	100	95	50	
22	END OF BOREHOLE @ 21.5ft BGS	569.78						
24								
26								
28								
30								
32								
34								
36								

BEDROCK LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

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

WATER BEARING ZONE ▼

CHEMICAL ANALYSIS ○



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (82 Harrison Street)

HOLE DESIGNATION: MW-22  
 DATE COMPLETED: June 8, 2009  
 DRILLING METHOD: 4.25 HSA  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
	NORTHING: 1045620.7 EASTING: 1081594.66	TOP OF CASING 592.68 GROUND SURFACE 592.58 TOP OF RISER 592.34						
2	ML-SILT, some clay, dense, firm, dark brown to black, moist (TOPSOIL)	591.48		SS1	1.0	7	0	
4	CL-CLAY, little silt, dense, stiff, brown with yellow mottling, moist (NATIVE)			SS2	2.0	14	0	
6				SS3	2.0	18	0	
8				SS4	2.0	16	0	
10	ML-SILT, little clay and gravel, trace fine sand, brown to gray, moist to wet, becoming soft (TILL) - some gravel, trace clay, wet below 11.1 ft BGS	583.08		SS5	2.0	8	0	
12	END OF BOREHOLE @ 12.0ft BGS	580.58		SS6	2.0	6	0	
14	Auger Refusal @ 12 ft BGS		<p><b>WELL DETAILS</b></p> <p>Screened interval: 585.58 to 580.58ft AMSL 7.00 to 12.00ft BGS</p> <p>Length: 5ft Diameter: 2in Slot Size: 0.010 Material: PVC</p> <p>Seal: 589.58 to 587.58ft AMSL 3.00 to 5.00ft BGS Material: Bentonite</p> <p>Sand Pack: 587.58 to 580.58ft AMSL 5.00 to 12.00ft BGS Material: Size 00N Sand</p>					
16								
18								
20								
22								
24								
26								
28								
30								
32								
34								
<p><b>NOTES:</b> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE          WATER FOUND ▼          CHEMICAL ANALYSIS ○</p>								

OVERBURDEN LOG: 37191.GPJ CRA\_CORP.GDT 2/23/10





# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (82 Harrison Street)

HOLE DESIGNATION: MW-22A  
 DATE COMPLETED: June 8, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	N VALUE	PID (ppm)	
	NORTHING: 1045620.56 EASTING: 1081598.23	TOP OF CASING 592.61 GROUND SURFACE 592.53 TOP OF RISER 592.23							
2	ML-SILT, some clay, dense, firm, dark brown to black, moist (TOPSOIL) CL-CLAY, little silt, dense, stiff, brown with yellow mottling, moist (NATIVE)	591.73	<p>FLUSHMOUNT CASING CONCRETE 4" STEEL WELL RISER CEMENT/BENTONITE GROUT 8" Ø BOREHOLE</p>	SS1	X	1.7	9	0	
4				SS2	X	1.7	11	0	
6				SS3	X	2.0	15	0	
8				SS4	X	2.0	14	0	
10	ML-SILT, little clay and gravel, trace fine sand, dense, brown to gray, moist to wet, becoming soft (TILL) - some gravel, becoming wet below 10 ft BGS	583.33		SS5	X	2.0	4	0	
12	NOT SAMPLED -Auger Refusal - bedrock encountered @ 11.8 ft BGS	580.93 580.73		SS6	X	1.0	10	0	
14	END OF OVERBURDEN HOLE @ 11.8ft BGS								
16									
18									
20									
22									
24									
26									
28									
30									
32									
34									

OVERBURDEN LOG: 37191.GPJ\_CRA\_CORP.GDT\_2/23/10

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE  
 WATER FOUND ▼ WATER BEARING ZONE ▼  
 CHEMICAL ANALYSIS ○



# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (82 Harrison Street)

HOLE DESIGNATION: MW-22A  
 DATE COMPLETED: June 8, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	RUN NUMBER	CORE RECOVERY %	RQD %	Vol. Water (gal)
12	NOT SAMPLED -Auger Refusal - bedrock encountered @ 11.8 ft BGS	580.93 580.73	▽				
14	BEDROCK (Not sampled)		6"Ø ROCK SOCKET				
16	LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils	577.93	4"Ø COREHOLE	1	100	86	0
22				2	98	82	0
28				3	102	90	0
32				4	100	90	30
34	- fracture, slightly weathered, bedding plane parallel below 33.5 ft BGS		▼				
34.6	END OF BOREHOLE @ 34.6ft BGS	557.93					

BEDROCK LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

**NOTES:** MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE  
 WATER FOUND ▼ WATER BEARING ZONE ▼  
 CHEMICAL ANALYSIS ○



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (82 Harrison Street)

HOLE DESIGNATION: MW-23A  
 DATE COMPLETED: June 5, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1045486.61 EASTING: 1081367.36	GROUND SURFACE 591.10 TOP OF CASING 591.08 TOP OF RISER 590.65							
2	ML-SILT, trace clay, fine sand, and roots, dark brown, dry to moist (TOPSOIL)			SS1	X	1.7	6	0	
4	CL-CLAY, little silt, dense, stiff, brown with yellow mottling, moist (NATIVE)	588.90		SS2	X	1.9	14	0	
6				SS3	X	2.0	15	0	
8				SS4	X	2.0	17	0	
10	- becoming very moist, high plasticity below 10 ft BGS			SS5	X	2.0	17	0	
12				SS6	X	2.0	6	0	
14	ML-SILT, little clay, fine sand and gravel, dense, gray, wet (TILL) - Auger Refusal - bedrock encountered @ 13.7 ft BGS END OF OVERBURDEN HOLE @ 13.7ft BGS	577.80 577.40		SS7	X	6	6	0	

OVERBURDEN LOG: 37191.GPJ CRA\_CORP.GDT 2/23/10

**NOTES:** MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE  
 WATER FOUND ▼ WATER BEARING ZONE ▼  
 CHEMICAL ANALYSIS ○



# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (82 Harrison Street)

HOLE DESIGNATION: MW-23A  
 DATE COMPLETED: June 5, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	RUN NUMBER	CORE RECOVERY %	RQD %	Vol. Water (gal)	
14	ML-SILT, little clay, fine sand and gravel, dense, gray, wet (TILL) - Auger Refusal - bedrock encountered @ 13.7 ft BGS	577.80 577.40	<p>6" ROCK SOCKET</p> <p>4" COREHOLE</p>					
16	BEDROCK (Not sampled)	575.40						
18	LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils				1	100	90	0
20					2	100	94	0
22								
24								
26								
28								
30								
32								
34	- fracture, slightly weathered, bedding plane parallel below 33.5 ft BGS							
34	END OF BOREHOLE @ 34.6ft BGS	556.50		4	100	92	20	
36								
38								
40								
42								
44								
46								

BEDROCK LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

**NOTES:** MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE  
 WATER FOUND ▼ WATER BEARING ZONE ▼  
 CHEMICAL ANALYSIS ○



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (141 Milton Street)

HOLE DESIGNATION: MW-24A  
 DATE COMPLETED: June 23, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1045954.52 EASTING: 1081971.85	GROUND SURFACE 598.33 TOP OF CASING 598.33 TOP OF RISER 598.08							
2	CONCRETE GP-GRAVEL, little sand and silt, loose, dark gray, moist (FILL)	598.03 597.83	<p>FLUSHMOUNT CASING CONCRETE 4" STEEL WELL RISER CEMENT/BENTONITE GROUT 8" Ø BOREHOLE</p>	SS1	X	0.5	4	0	
4	CL-CLAY, some silt, medium plasticity, brown, moist (FILL)	596.03		SS2	X	1.5	4	0	
6	SM-SILTY SAND, some cinders, fine grained, brown with black staining, moist (FILL)	594.93		SS3	X	1.7	14	0	
8	CL-CLAY, trace silt, stiff, brown, moist (NATIVE)	590.93		SS4	X	2.0	19	0	
10	ML-SILT, some angular gravel, little sand, hard, brown, dry to moist - Auger Refusal - bedrock encountered @ 8.2 ft BGS END OF OVERBURDEN HOLE @ 8.2ft BGS	590.13		SS5	X	0.5	>50	0	
12									
14									
16									
18									
20									
22									
24									
26									
28									
30									
32									
34									

OVERBURDEN LOG: 37191.GPJ CRA\_CORP.GDT 2/23/10

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

WATER BEARING ZONE ▼

CHEMICAL ANALYSIS ○



# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (141 Milton Street)

HOLE DESIGNATION: MW-24A  
 DATE COMPLETED: June 23, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	RUN NUMBER	CORE RECOVERY %	RQD %	Vol. Water (gal)
8	ML-SILT, some angular gravel, little sand, hard, brown, dry to moist - Auger Refusal - bedrock encountered @ 8.2 ft BGS	590.93 590.13	8" Ø BOREHOLE 6" Ø ROCK SOCKET				
10	BEDROCK (Not sampled)	588.13	4" Ø COREHOLE	1	93	83	50
12	LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils - fracture, highly weathered, bedding plane parallel below 11.7 ft BGS		▼				
14							
16	END OF BOREHOLE @ 15.7ft BGS	582.63					
18							
20							
22							
24							
26							
28							
30							
32							
34							
36							
38							
40							
<p><b>NOTES:</b> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE</p> <p style="text-align: center;">WATER BEARING ZONE ▼</p> <p>CHEMICAL ANALYSIS ○</p>							

BEDROCK LOG 37191.GPJ CRA\_CORP.GDT 2/23/10



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site

HOLE DESIGNATION: MW-25

PROJECT NUMBER: 37191

DATE COMPLETED: June 22, 2009

CLIENT: Hodgson Russ

DRILLING METHOD: 4.25 HSA

LOCATION: Buffalo, NY

FIELD PERSONNEL: J. Williams

(141 Milton Street)

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE				
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)
	NORTHING: 1046011.9 EASTING: 1081845.31	TOP OF CASING 598.42 GROUND SURFACE 598.42 TOP OF RISER 598.13						
	CONCRETE	598.12	<p><b>WELL DETAILS</b>            Screened interval:            593.92 to 590.92ft AMSL            4.50 to 7.50ft BGS            Length: 3ft            Diameter: 2in            Slot Size: 0.010            Material: PVC            Seal:            597.42 to 595.42ft AMSL            1.00 to 3.00ft BGS            Material: Bentonite            Sand Pack:            595.42 to 590.92ft AMSL            3.00 to 7.50ft BGS            Material: Size 00N Sand</p>					
2	GM-SILT and GRAVEL, little sand, angular gravel, loose, black, moist (FILL)	597.92 597.72		SS1	X	1.0	4	0.1
4	SP-SAND, loose, medium to coarse grained, tan, moist (FILL)	596.12		SS2	X	1.5	5	0.1
6	ML/CL-CLAY and SILT, dense, stiff, brown, moist (FILL)	594.32		SS3	X	2.0	8	0.1
6	CL-CLAY, trace silt, stiff, brown with yellow mottling, moist (NATIVE)							
8	ML-SILT, some clay, little subrounded gravel, very dense, brown, moist to wet							
8	END OF BOREHOLE @ 7.5ft BGS	590.82	SS4	X	0.5	42	3.6	
10	Auger Refusal @ 7.5 ft BGS							

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

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

CHEMICAL ANALYSIS



# STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (141 Milton Street)

HOLE DESIGNATION: MW-25A  
 DATE COMPLETED: June 23, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	SAMPLE					
				NUMBER	INTERVAL	REC (ft)	'N' VALUE	PID (ppm)	
	NORTHING: 1046007.18 EASTING: 1081847.89	GROUND SURFACE 598.47 TOP OF CASING 598.46 TOP OF RISER 598.13							
	CONCRETE	598.17	<p>FLUSHMOUNT CASING            CONCRETE            4"Ø STEEL WELL RISER            CEMENT/BENTONITE GROUT            8"Ø BOREHOLE</p>						
2	GM-GRAVEL and SILT, little sand, angular, loose, black, dry to moist	597.67		SS1	X	1.2	6	0	
	SP-SAND, trace silt, loose, fine grained, brown, dry to moist	596.37			X				
4	ML/CL-SILT and CLAY, brown, moist			SS2	X	1.5	9	0	
	CL-CLAY, trace silt and gravel, dense, medium plasticity, brown, moist to wet	594.27			X				
6			SS3	X	2.0	15	0		
8	NOT SAMPLED -Auger Refusal - bedrock encountered @ 7.5 ft BGS END OF OVERBURDEN HOLE @ 7.5ft BGS	591.07 590.97	SS4	X	1.5	>50	0		

OVERBURDEN LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

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

WATER BEARING ZONE ▼

CHEMICAL ANALYSIS ○





# STRATIGRAPHIC AND INSTRUMENTATION LOG (BEDROCK)

PROJECT NAME: Former Buffalo China Site  
 PROJECT NUMBER: 37191  
 CLIENT: Hodgson Russ  
 LOCATION: Buffalo, NY  
 (141 Milton Street)

HOLE DESIGNATION: MW-25A  
 DATE COMPLETED: June 23, 2009  
 DRILLING METHOD: 6.25 HSA/HQ Core  
 FIELD PERSONNEL: J. Williams

DEPTH ft BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft AMSL	MONITORING WELL	RUN NUMBER	CORE RECOVERY %	ROD %	Vol. Water (gal)
8	NOT SAMPLED -Auger Refusal - bedrock encountered @ 7.5 ft BGS	591.07 590.97					
10	BEDROCK (Not sampled) LIMESTONE (Onondaga formation, Moorehouse member) fine to medium grained, light to medium gray limestone, light buff to dark gray chert nodules, occasional fossils - fracture, moderately weathered, vertical between 10.7 and 11.8 ft BGS - fracture, moderately weathered, bedding plane parallel below 12.4 ft BGS	588.97		1	71	58	0
14	END OF BOREHOLE @ 14.5ft BGS	583.97	2	100	91	100	
16							
18							
20							
22							
24							
26							
28							
30							
32							
34							
36							
38							
40							
<p><b>NOTES:</b> MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE</p> <p style="text-align: center;">WATER BEARING ZONE ▼</p> <p>CHEMICAL ANALYSIS ○</p>							

BEDROCK LOG 37191.GPJ CRA\_CORP.GDT 2/23/10

APPENDIX C  
WELL DEVELOPMENT RECORDS

## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Buffalo China PROJECT NO.: 37191  
 DATE OF WELL DEVELOPMENT: 12/23/08  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: —  
 SAMPLE TIME: —

### WELL INFORMATION

WELL NUMBER: MW-5A  
 WELL TYPE (diameter/material): 4"  $\phi$  Bedrock Open Hole  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 610 ft. BTDC ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 16.1 ft. BTDC ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 10 ft.  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 6.4 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
 1 meter = 0.5 liters  
 For 2-inch diameter well: 1 foot = 0.16 US gallons  
 1 meter = 2 liters  
 For 4-inch diameter well: 1 foot = 0.70 US gallons  
 1 meter = 8.2 liters

UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):	6.4	12.8	19.2	25.6	32.0	
FIELD pH:	SV	9.33	9.46	8.98	8.96	8.94
FIELD TEMPERATURE:	$^{\circ}\text{C}$	4.0	6.9	8.0	7.9	7.9
FIELD CONDUCTIVITY:	$\mu\text{S}/\text{cm}$	9.53	2.58	4.09	3.82	3.96
CLARITY/TURBIDITY VALUES:	NTU	986	>999	>999	>999	>999
COLOR:	gray	gray	clearly	—	—	—
ODOR:	strong chemical	—	—	—	—	—
COMMENTS:	NAPL present	—	—	—	—	—

COPIES TO: \_\_\_\_\_

## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Former Buffalo China Site PROJECT NO.: 37191  
 DATE OF WELL DEVELOPMENT: 6/15/09  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: —  
 SAMPLE TIME: —

**WELL INFORMATION**

WELL NUMBER: MW-6A  
 WELL TYPE (diameter/material): 4-inch bedrock  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 5.26 ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 21.1 ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 15.8  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 10.1 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
   1 meter = 0.5 liters  
 For 2-inch diameter well: 1 foot = 0.16 US gallons  
   1 meter = 2 liters  
 For 4-inch diameter well: 1 foot = 0.70 US gallons  
   1 meter = 8.2 liters

	UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):	gallons	10	20	30	40	50	
FIELD pH:	SV	5.13	6.93	7.03	6.98	6.95	
FIELD TEMPERATURE:	°C	13.2	12.7	12.8	13.0	12.7	
FIELD CONDUCTIVITY:	MS/cm	1.21	1.30	1.53	1.62	1.68	
CLARITY/TURBIDITY VALUES:	NTU	-5.0	-5.0	269	117	84.1	
COLOR:	—	gray	gray	gray	clear	clear	
ODOR:	—	none	none	none	none	none	
COMMENTS:	—	cloudy	cloudy	clearing			

COPIES TO: \_\_\_\_\_

## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Buffalo China PROJECT NO.: 37191  
 DATE OF WELL DEVELOPMENT: 12/18/08  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: —  
 SAMPLE TIME: —

### WELL INFORMATION

WELL NUMBER: MW-7A  
 WELL TYPE (diameter/material): 4"  $\phi$  Bedrock open Hole  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 2.55 ft. BTOC ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 14.6 ft. BTOC ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 12.1 ft.  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 7.7 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
 1 meter = 0.5 liters  
 For 2-inch diameter well: 1 foot = 0.16 US gallons  
 1 meter = 2 liters  
 For 4-inch diameter well: 1 foot = 0.70 US gallons  
 1 meter = 8.2 liters

	UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):		8	16	24	36		
FIELD pH:	SU	8.27	8.03	7.75	7.37		
FIELD TEMPERATURE:	$^{\circ}$ C	11.3	11.8	12.0	12.4		
FIELD CONDUCTIVITY:	$\mu$ S/cm	0.002	1.39	1.48	1.89		
CLARITY/TURBIDITY VALUES:	NTU	149	176	155	48		
COLOR:		cloudy, gray	—	—	clear		
ODOR:		None	None	None	None		
COMMENTS:							

COPIES TO: \_\_\_\_\_

## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Buffalo China PROJECT NO.: 37191  
 DATE OF WELL DEVELOPMENT: 12/18/08  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: elec. submersible pump  
 SAMPLE NO.: —  
 SAMPLE TIME: —

**WELL INFORMATION**

WELL NUMBER: MW-9A  
 WELL TYPE (diameter/material): 4"  $\phi$  Bedrock open Hole  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 10.62 ft. BTOC ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 26.0 ft. BTOC ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 15.4 ft.  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 9.8 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
 1 meter = 0.5 liters  
 For 2-inch diameter well: 1 foot = 0.16 US gallons  
 1 meter = 2 liters  
 For 4-inch diameter well: 1 foot = 0.70 US gallons  
 1 meter = 8.2 liters

UNITS	1	2	3	4	5	6
VOLUME PURGED (volume/total volume):	10	20	30	40	50	60
FIELD pH:	5.97	6.64	7.18	7.69	7.68	7.66
FIELD TEMPERATURE:	9.0	10.7	10.8	10.4	11.0	9.7
FIELD CONDUCTIVITY:	13.4	0.002	1.51	1.48	1.53	1.55
CLARITY/TURBIDITY VALUES:	NTU	>999	847	893	408	177
COLOR:	gray	gray	gray	clearing	clear	clear
ODOR:	None	None	None	None	None	None
COMMENTS:						

COPIES TO: \_\_\_\_\_

8

MW-10

MILTON

DATE 8-27-08

CREW SG/DJT

PROJECT 37191

DEPTH 8.88

INITIAL W/L 7.56

VOL CALC. 8.88 - 7.56 = 1.32 x 16 = 0.21

METHOD SS BAULER

TURGE RECORD

TIME	VOL	PH	COND	TEMP	TURB
1246	0.21	7.06	0.974	20.3	89.4
1247	0.42	7.14	0.897	17.4	556.3
1249	0.08	7.16	0.927	16.5	1081.3
1250	0.84	7.18	0.939	16.4	1213.2

WELL DRY AFTER 4 VOLUMES

INITIAL W/O CLOUDY BROWN

FINAL W/O CLOUDY DARK BROWN

Test Control #15

W/L Meter NF 04417

PST NF 04441

*Sharon Harrison*

9

MW-11

HARRISON

DATE 8-27-08

CREW SG/DJT

PROJECT 37191

DEPTH 8.51

INITIAL W/L 5.31

VOL CALC 8.51 - 5.31 = 3.20 x 16 = 0.51

METHOD SS BAULER

TURGE RECORD

TIME	VOL	PH	COND	TEMP	TURB
1304	0.51	7.22	2.23	18.8	222.7
1305	1.02	7.22	2.00	17.9	95.5
1306	1.53	7.26	2.08	17.5	150.3
1307	2.04	7.24	2.27	17.1	491.3
1308	2.55	7.29	2.33	17.0	1255.3

WELL DRY AFTER 5 VOLUMES

INITIAL W/O CLEAR, COLORLESS

FINAL W/O CLOUDY BROWN

Test Control #15

W/L Meter NF 04417

PST NF 04441

*Sharon Harrison*

## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Buffalo China PROJECT NO.: 37191  
 DATE OF WELL DEVELOPMENT: 12/18/08  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: —  
 SAMPLE TIME: —

**WELL INFORMATION**

WELL NUMBER: MW-13A  
 WELL TYPE (diameter/material): 4"  $\phi$  Bedrock open Hole  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 6.12 ft. BTOC ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 14.4 ft. BTOC ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 8.3 ft.  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 5.3 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
 1 meter = 0.5 liters  
 For 2-inch diameter well: 1 foot = 0.16 US gallons  
 1 meter = 2 liters  
 For 4-inch diameter well: 1 foot = 0.70 US gallons  
 1 meter = 8.2 liters

	UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):		5.3	10.6	15.9	21.2	26.5	
FIELD pH:	SO	8.77	8.39	8.12	7.92	7.78	
FIELD TEMPERATURE:	OC	8.5	10.1	9.9	9.9	9.7	
FIELD CONDUCTIVITY:	MS/cm	0.002	0.002	9.0	0.003	1.74	
CLARITY/TURBIDITY VALUES:	NTU	871	>999	>999	623	435	
COLOR:		cloudy, gray	—	—	—	—	→
ODOR:		None	None	None	None	None	
COMMENTS:							

COPIES TO: \_\_\_\_\_



## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: \_\_\_\_\_ PROJECT NO.: \_\_\_\_\_

DATE OF WELL DEVELOPMENT: \_\_\_\_\_

DEVELOPMENT CREW MEMBERS: \_\_\_\_\_

PURGING METHOD: \_\_\_\_\_

SAMPLE NO.: \_\_\_\_\_

SAMPLE TIME: \_\_\_\_\_

**WELL INFORMATION**

WELL NUMBER: MN-13A

WELL TYPE (diameter/material) \_\_\_\_\_

MEASURING POINT ELEVATION: \_\_\_\_\_

STATIC WATER DEPTH: \_\_\_\_\_ ELEVATION: \_\_\_\_\_

BOTTOM DEPTH: \_\_\_\_\_ ELEVATION: \_\_\_\_\_

WATER COLUMN LENGTH: \_\_\_\_\_

SCREENED INTERVAL: \_\_\_\_\_

WELL VOLUME: \_\_\_\_\_

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
 1 meter = 0.5 liters

For 2-inch diameter well: 1 foot = 0.16 US gallons  
 1 meter = 2 liters

For 4-inch diameter well: 1 foot = 0.70 US gallons  
 1 meter = 8.2 liters

UNITS	6	7	8			TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):	31.8	37.1	42.4			
FIELD pH:	7.08	6.95	6.87			
FIELD TEMPERATURE:	10.1	10.3	10.3			
FIELD CONDUCTIVITY:	1.74	1.74	1.74			
CLARITY/TURBIDITY VALUES:	253	160	33.8			
COLOR:	clearing	clearing	clear			
ODOR:	None	None	None			
COMMENTS:						

COPIES TO: \_\_\_\_\_

## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Buffalo China PROJECT NO.: 37191  
 DATE OF WELL DEVELOPMENT: 12/23/08  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: —  
 SAMPLE TIME: —

**WELL INFORMATION**

WELL NUMBER: MW-14A  
 WELL TYPE (diameter/material): 4" Ø Bedrock Open Hole  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 11.25 Ft. BTOC ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 13.6 Ft. BTOC ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 2.4 Ft.  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 1.5 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
 1 meter = 0.5 liters  
 For 2-inch diameter well: 1 foot = 0.16 US gallons  
 1 meter = 2 liters  
 For 4-inch diameter well: 1 foot = 0.70 US gallons  
 1 meter = 8.2 liters

UNITS	1	2	3	4	5	6'
VOLUME PURGED (volume/total volume):	1.5	3.0	4.5	6.0	7.5	9.0
FIELD pH:	SU 7.68	7.71	7.86	7.88	8.03	8.05
FIELD TEMPERATURE:	OC 7.2	7.7	—	7.8	7.8	7.7
FIELD CONDUCTIVITY:	us/cm 0.89	0.92	0.96	1.02	1.07	1.06
CLARITY/TURBIDITY VALUES:	NTU 755	283	162	96	84	47
COLOR:	cloudy, gray	→		clear	→	
ODOR:						
COMMENTS:						

COPIES TO: \_\_\_\_\_

## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Buffalo China PROJECT NO.: 37191  
 DATE OF WELL DEVELOPMENT: 12/23/08  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: —  
 SAMPLE TIME: —

**WELL INFORMATION**

WELL NUMBER: MW-15A  
 WELL TYPE (diameter/material): 4"  $\phi$  Bedrock open Hole  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 10.35 Ft. BTOC ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 14.2 Ft. BTOC ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 3.9 Ft.  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 2.5 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
 1 meter = 0.5 liters  
 For 2-inch diameter well: 1 foot = 0.16 US gallons  
 1 meter = 2 liters  
 For 4-inch diameter well: 1 foot = 0.70 US gallons  
 1 meter = 8.2 liters

	UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):		2.5	5.0	7.5	10.0	12.5	
FIELD pH:	50	—	7.37	7.42	7.53	7.57	
FIELD TEMPERATURE:	$^{\circ}$ C	—	5.1	6.7	6.8	6.8	
FIELD CONDUCTIVITY:	us/cm	—	2.10	3.10	3.10	3.06	
CLARITY/TURBIDITY VALUES:	NTU	—	162	98	62	36	
COLOR:		cloudy, gray	clearly	clear	—	—	
ODOR:		None	None	None	None	None	
COMMENTS:							

COPIES TO: \_\_\_\_\_

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: Buffalo China  
 Ref. No.: 37191

Date: 5/13/68  
 Personnel: S. McEvoy

Monitoring Well Data:

Well No.: MW-17  
 Measurement Point: \_\_\_\_\_  
 Constructed Well Depth (ft): \_\_\_\_\_  
 Measured Well Depth (ft): 11.35  
 Depth of Sediment (ft): \_\_\_\_\_

Screen Length (ft): \_\_\_\_\_  
 Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Well Diameter, D (in): 2"  
 Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: 0.8 gal  
 Initial Depth to Water (ft): 6.4/3

Start

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1032	200	6.88	0.45	5.11	13.0	1.89	250	10.11	185		
1037	200	7.08	0.65	5.13	11.0	1.82	231	6.72	77.1		
1042	200	7.28	0.85	5.62	10.7	1.81	195	5.62	102		
1047	375	7.68	1.25	5.72	10.3	1.80	180	6.14	22.0		
1052	375	8.06	1.63	5.65	10.2	1.78	184	4.54	29.7	1.0 gal	
1057	450	8.57	2.14	5.66	10.0	1.77	183	6.20	28.1		
1102	450	9.03	2.60	5.61	10.0	1.76	190	4.57	32	2.0 gal	
1107	450	9.50	3.07	5.63	10.1	1.76	191	4.03	28.3		
1112	450	9.88	3.45	5.67	10.1	1.76	193	3.80	25.7	3.0 gal	
1118	450	10.38	3.95	5.77	10.1	1.74	193	3.55	29.0		
		Stopped purging at 1119.				~3.8 gal	purged.				

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length,  $V_s = p \times (D/2)^2 \times (5 \times 12) \times (2.54)^3$
- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p / V_s$ .

## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Former Buffalo China Site PROJECT No.: 3791  
 DATE OF WELL DEVELOPMENT: 6/17/09  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: —  
 SAMPLE TIME: —

**WELL INFORMATION**

WELL NUMBER: MW-18A  
 WELL TYPE (diameter/material): 4-inch bedrock  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 8.08 ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 15.4 ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 7.3  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 4.7 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
           1 meter = 0.5 liters  
       For 2-inch diameter well: 1 foot = 0.16 US gallons  
           1 meter = 2 liters  
       For 4-inch diameter well: 1 foot = 0.70 US gallons  
           1 meter = 8.2 liters

	UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):	gallons	5	10	15	20	25	
FIELD pH:	S.U.	5.82	6.06	6.41	6.62	6.70	
FIELD TEMPERATURE:	°C	13.4	12.8	12.9	13.4	13.5	
FIELD CONDUCTIVITY:	µS/cm	1.69	1.84	2.03	2.01	2.09	
CLARITY/TURBIDITY VALUES:	NTU	179	327	322	-5.0	186	
COLOR:	—	gray	gray	gray	gray	clear	
ODOR:	—	none	none	none	none	none	
COMMENTS:	—	cloudy	cloudy	cloudy	cloudy	clear	

COPIES TO: \_\_\_\_\_

# WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Former Buffalo China Site PROJECT NO.: 37191

DATE OF WELL DEVELOPMENT: 6/17/09

DEVELOPMENT CREW MEMBERS: J. Williams

PURGING METHOD: Bailer

SAMPLE NO.: -

SAMPLE TIME: -

### WELL INFORMATION

WELL NUMBER: MW-19

WELL TYPE (diameter/material): 2"  $\phi$  PVC O/B

MEASURING POINT ELEVATION: \_\_\_\_\_

STATIC WATER DEPTH: 3.24 ELEVATION: \_\_\_\_\_

BOTTOM DEPTH: 7.7 ELEVATION: \_\_\_\_\_

WATER COLUMN LENGTH: 4.5

SCREENED INTERVAL: \_\_\_\_\_

WELL VOLUME: 0.7 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
 1 meter = 0.5 liters

For 2-inch diameter well: 1 foot = 0.16 US gallons  
 1 meter = 2 liters

For 4-inch diameter well: 1 foot = 0.70 US gallons  
 1 meter = 8.2 liters

	UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):	gallons	0.7	1.4	2.1	2.8	3.5	
FIELD pH:	S.W.	6.86	6.69	6.88	6.71	6.68	
FIELD TEMPERATURE:	$^{\circ}$ C	17.1	16.0	16.3	15.7	15.6	
FIELD CONDUCTIVITY:	uS/cm	1.68	1.66	1.67	1.69	1.70	
CLARITY/TURBIDITY VALUES:	NTU	-5	-5	-5	-5	-5	
COLOR:	-	Tan	Tan	Tan	Tan	Tan	
ODOR:	-	none	none	none	none	none	
COMMENTS:	-	cloudy	cloudy	cloudy	cloudy	cloudy	

COPIES TO: \_\_\_\_\_



## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Former Buffalo China Site PROJECT NO.: 37191  
 DATE OF WELL DEVELOPMENT: 6/12/09  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: —  
 SAMPLE TIME: —

**WELL INFORMATION**

WELL NUMBER: MW-20  
 WELL TYPE (diameter/material): 2" Ø PVC O/B  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 4.3 ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 8.2 ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 3.9  
 SCREENED INTERVAL: 3.2 - 8.2  
 WELL VOLUME: 0.62 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
 1 meter = 0.5 liters  
 For 2-inch diameter well: 1 foot = 0.16 US gallons  
 1 meter = 2 liters  
 For 4-inch diameter well: 1 foot = 0.70 US gallons  
 1 meter = 8.2 liters

	UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):	gallons	0.6	1.2	1.8	2.4	3.0	
FIELD pH:	50	6.78	6.76	6.81	6.77	6.70	
FIELD TEMPERATURE:	°C	14.9	14.6	14.4	14.0	14.5	
FIELD CONDUCTIVITY:	µS/cm	2.68	2.83	2.85	2.79	2.81	
CLARITY/TURBIDITY VALUES:	NTU	187	225	91.3	24.3	14.6	
COLOR:		clear	brown	clear	clear	clear	
ODOR:	Ⓟ	None	None	None	None	None	
COMMENTS:			cloudy				

COPIES TO: \_\_\_\_\_



## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Former Buffalo China Site PROJECT No.: 37191  
 DATE OF WELL DEVELOPMENT: 6/12/09  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: —  
 SAMPLE TIME: —

**WELL INFORMATION**

WELL NUMBER: MW-20A  
 WELL TYPE (diameter/material): 4-inch  $\phi$  bedrock  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 4.19' BTDC ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 18.9' BTDC ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 14.7'  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 9.4 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
 1 meter = 0.5 liters  
 For 2-inch diameter well: 1 foot = 0.16 US gallons  
 1 meter = 2 liters  
 For 4-inch diameter well: 1 foot = 0.70 US gallons  
 1 meter = 8.2 liters

UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume): gallons	10	20	30	40		
FIELD pH: SU	6.75	6.84	6.81	6.89		
FIELD TEMPERATURE: °C	13.1	12.8	12.2	15.0		
FIELD CONDUCTIVITY: µS/cm	1.43	1.53	1.64	1.72		
CLARITY/TURBIDITY VALUES: NTU	-5.0	422	271	132		
COLOR:	gray	gray	clear	clear		
ODOR:	none	none	None	None		
COMMENTS:	cloudy	slightly cloudy				

COPIES TO: \_\_\_\_\_

## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Former Buffalo China Site PROJECT NO.: 37191  
 DATE OF WELL DEVELOPMENT: 6/15/09  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: -  
 SAMPLE TIME: -

**WELL INFORMATION**

WELL NUMBER: MW-21A  
 WELL TYPE (diameter/material): 4-inch bedrock  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 7.2 ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 21.4 ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 14.2  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 9.1 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
           1 meter = 0.5 liters  
       For 2-inch diameter well: 1 foot = 0.16 US gallons  
           1 meter = 2 liters  
       For 4-inch diameter well: 1 foot = 0.70 US gallons  
           1 meter = 8.2 liters

	UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):	gallons	9	18	27	36		
FIELD pH:	SV	7.11	6.79	6.75	6.75		
FIELD TEMPERATURE:	°C	15.1	14.8	13.4	13.3		
FIELD CONDUCTIVITY:	µS/cm	1.86	1.81	1.83	1.82		
CLARITY/TURBIDITY VALUES:	NTU	553	136	54.7	49.0		
COLOR:	-	gray	gray	clear	clear		
ODOR:	-	none	none	none	none		
COMMENTS:	-	cloudy	clearing				

COPIES TO: \_\_\_\_\_

# WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Former Buffalo China Site PROJECT NO.: 37191  
 DATE OF WELL DEVELOPMENT: 6/17/09  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: -  
 SAMPLE TIME: -

**WELL INFORMATION**

WELL NUMBER: MW-22  
 WELL TYPE (diameter/material): 2" P VC O/B  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 4.12 ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 11.3 ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 7.2  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 1.2 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
 1 meter = 0.5 liters  
 For 2-inch diameter well: 1 foot = 0.16 US gallons  
 1 meter = 2 liters  
 For 4-inch diameter well: 1 foot = 0.70 US gallons  
 1 meter = 8.2 liters

	UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):	gallons	1.2	2.4	3.6	4.8	6.0	
FIELD pH:	S.U.	6.91	6.69	6.58	6.74	NA	.
FIELD TEMPERATURE:	°C	14.7	14.1	13.2	14.6	NA	
FIELD CONDUCTIVITY:	µS/cm	162	169	181	177	NA	
CLARITY/TURBIDITY VALUES:	NTU	123	270	117	201	NA	
COLOR:	-	clear	hazy	clear	clear	NA	
ODOR:	-	none	none	none	none	NA	
COMMENTS:	-		cloudy			dry	

COPIES TO: \_\_\_\_\_

## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Former Buffalo China Site PROJECT NO.: 37191  
 DATE OF WELL DEVELOPMENT: 6/29/09  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: —  
 SAMPLE TIME: —

### WELL INFORMATION

WELL NUMBER: MW-22A  
 WELL TYPE (diameter/material): 4" ∅ bedrock  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 7.95 ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 34.2 ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 26.3  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 16.8 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
           1 meter = 0.5 liters  
 For 2-inch diameter well: 1 foot = 0.16 US gallons  
           1 meter = 2 liters  
 For 4-inch diameter well: 1 foot = 0.70 US gallons  
           1 meter = 8.2 liters

	UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):	gallons	17	34	51	68	85	
FIELD pH:	S.U.	6.24	6.76	6.69	6.67	6.65	
FIELD TEMPERATURE:	°C	15.0	15.4	14.0	14.2	14.2	
FIELD CONDUCTIVITY:	µS/cm	1.63	1.54	1.54	1.53	1.53	
CLARITY/TURBIDITY VALUES:	NTU	5	291	226	119	48.2	
COLOR:		gray	gray	gray	clear	clear	
ODOR:		none	none	none	none	none	
COMMENTS:		muddy	cloudy	cloudy			

COPIES TO: \_\_\_\_\_

## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Former Buffalo China Site PROJECT NO.: 37191  
 DATE OF WELL DEVELOPMENT: 6/29/09  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: -  
 SAMPLE TIME: -

**WELL INFORMATION**

WELL NUMBER: MW-23A  
 WELL TYPE (diameter/material): 4-inch  $\phi$  bedrock  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 14.26 ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 34.3 ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 20.0  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 12.8 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
           1 meter = 0.5 liters  
       For 2-inch diameter well: 1 foot = 0.16 US gallons  
           1 meter = 2 liters  
       For 4-inch diameter well: 1 foot = 0.70 US gallons  
           1 meter = 8.2 liters

UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume): gallons	13	26	39	52	65	
FIELD pH: S.U.	6.98	6.78	6.69	6.65	6.64	
FIELD TEMPERATURE: $^{\circ}$ C	15.4	15.3	14.3	14.2	14.1	
FIELD CONDUCTIVITY: MS/cm	1.51	1.74	1.76	1.75	1.74	
CLARITY/TURBIDITY VALUES: NTU	-5	-5	332	128	42.1	
COLOR:	gray	gray	gray	clear	clear	
ODOR:	none	none	none			
COMMENTS:	muddy	muddy	cloudy			

COPIES TO: \_\_\_\_\_

## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Former Buffalo China Site PROJECT No.: 37191  
 DATE OF WELL DEVELOPMENT: 6/24/09  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: —  
 SAMPLE TIME: —

**WELL INFORMATION**

WELL NUMBER: MW-24A  
 WELL TYPE (diameter/material) 4-inch ø bedrock  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 7.75 ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 14.2 ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 6.45  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 4.1 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
 1 meter = 0.5 liters  
 For 2-inch diameter well: 1 foot = 0.16 US gallons  
 1 meter = 2 liters  
 For 4-inch diameter well: 1 foot = 0.70 US gallons  
 1 meter = 8.2 liters

	UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):	gallons	4	8	12	16	20	
FIELD pH:	S.W.	7.28	7.24	6.82	6.78	6.77	
FIELD TEMPERATURE:	°C	16.6	15.5	15.1	15.1	15.1	
FIELD CONDUCTIVITY:	µS/cm	1.67	1.76	1.78	1.79	1.78	
CLARITY/TURBIDITY VALUES:	NTU	156	215	146	87.2	36.8	
COLOR:		clear	gray	clear	clear	clear	
ODOR:		none	none	none	none	none	
COMMENTS:			slightly cloudy				

COPIES TO: \_\_\_\_\_

## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Former Buffalo China Site PROJECT No.: 37191  
 DATE OF WELL DEVELOPMENT: 6/24/09  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: —  
 SAMPLE TIME: —

**WELL INFORMATION**

WELL NUMBER: MW-25  
 WELL TYPE (diameter/material): 2" 4 overburden  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: dry ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 7.5 ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 0  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 0

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
           1 meter = 0.5 liters  
 For 2-inch diameter well: 1 foot = 0.16 US gallons  
           1 meter = 2 liters  
 For 4-inch diameter well: 1 foot = 0.70 US gallons  
           1 meter = 8.2 liters

UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):						
FIELD pH:						
FIELD TEMPERATURE:						
FIELD CONDUCTIVITY:						
CLARITY/TURBIDITY VALUES:						
COLOR:						
ODOR:						
COMMENTS:						

COPIES TO: \_\_\_\_\_

## WELL DEVELOPMENT AND STABILIZATION FORM

PROJECT NAME: Former Buffalo China Site PROJECT NO.: 37191  
 DATE OF WELL DEVELOPMENT: 6/24/09  
 DEVELOPMENT CREW MEMBERS: J. Williams  
 PURGING METHOD: electric submersible pump  
 SAMPLE NO.: -  
 SAMPLE TIME: -

**WELL INFORMATION**

WELL NUMBER: MW-25A  
 WELL TYPE (diameter/material): 4-inch Ø Bedrock  
 MEASURING POINT ELEVATION: \_\_\_\_\_  
 STATIC WATER DEPTH: 7.91 ELEVATION: \_\_\_\_\_  
 BOTTOM DEPTH: 13.3 ELEVATION: \_\_\_\_\_  
 WATER COLUMN LENGTH: 5.4  
 SCREENED INTERVAL: \_\_\_\_\_  
 WELL VOLUME: 3.5 gallons

Note: For 1-inch diameter well: 1 foot = 0.04 US gallons  
 1 meter = 0.5 liters  
 For 2-inch diameter well: 1 foot = 0.16 US gallons  
 1 meter = 2 liters  
 For 4-inch diameter well: 1 foot = 0.70 US gallons  
 1 meter = 8.2 liters

	UNITS	1	2	3	4	5	TOTAL/ AVERAGE
VOLUME PURGED (volume/total volume):	gallons	3.5	7.0	10.5	14.0	17.5	
FIELD pH:	S.U.	6.15	6.30	6.46	6.76	6.59	
FIELD TEMPERATURE:	°C	16.7	15.8	15.6	16.7	16.1	
FIELD CONDUCTIVITY:	µS/cm	0.93	0.99	0.80	0.79	0.80	
CLARITY/TURBIDITY VALUES:	NTU	395	6.2	0	54.3	0	
COLOR:		gray	-	-	-	-	
ODOR:		none	none	none	none	none	
COMMENTS:		slightly cloudy	clear	clear	clear	clear	

COPIES TO: \_\_\_\_\_



APPENDIX D  
WELL PURGING AND SAMPLE RECORDS



**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

**Project Data:**

Project Name: Buffalo China  
 Ref. No.: 37191

Date: 11/3/09  
 Personnel: St. Williams

**Monitoring Well Data:**

Well No.: MW-4  
 Vapour PID (ppm): NA  
 Measurement Point: T.O.C.  
 Constructed Well Depth (m/ft): 9.6 ft.  
 Measured Well Depth (m/ft): 9.6 ft.  
 Depth of Sediment (m/ft): 0

Saturated Screen Length (m/ft): 5.0 ft.  
 Depth to Pump Intake (m/ft)<sup>(1)</sup>: 7.6 ft.  
 Well Diameter, D (cm/in): 2 in.  
 Well Screen Volume, V<sub>s</sub> (L)<sup>(2)</sup>: 0.8 gallons  
 Initial Depth to Water (m/ft): 4.0 ft. BTOC

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm) ±0.005 or 0.01 m	Turbidity NTU ±10 %	DO (ug/L) ±10 %	pH ±0.1 Units	ORP (mV) ±10 mV	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1040	100	4.82	0.82	8.0	0.301	12.3	5.24	7.02	NA	0.5	0.2
1045	75	5.21	1.21	8.3	0.221	11.3	2.37	6.97	NA	0.88	0.3
1050	75	5.3	1.3	7.6	0.317	14.1	1.48	6.94	NA	1.3	0.4
1055	75	5.36	1.36	8.1	0.349	14.8	0.84	6.85	NA	1.6	0.5
1100	75	5.39	1.39	8.1	0.352	14.6	0.81	6.87	NA	2.0	0.6
1105	75	5.38	1.38	8.1	0.354	14.6	0.82	6.88	NA	2.4	0.8
1110	75	5.39	1.39	8.0	0.354	14.7	0.81	6.90	NA	2.8	0.9

**Notes:**

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi r^2 L$  in mL, where r (=D/2) and L are in cm. For Imperial units,  $V_s = \pi r^2 L \cdot (2.54)^3$ , where r and L are in inches.
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .
- (5) For conductivity, the average value of three readings <1 mS/cm, ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

SAMPLE ID: W-37191-072209-037  
 SAMPLE TIME 1145

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:  
 Project Name: FORMER BUFFALO CHINA  
 Ref. No.: 37191

Date: 7/22/09  
 Personnel: OUT/SG

Monitoring Well Data:  
 Well No.: MW-A  
 Measurement Point:  
 Constructed Well Depth (ft):  
 Measured Well Depth (ft):  
 Depth of Sediment (ft):

COFC #

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(1)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1125	100	5.61	0.24	6.87	18.63	1.491	-51	1.87	40.3		
1130	100	5.71	0.34	6.87	18.30	1.488	-61	1.59	32.7		
1135		5.84	0.47	6.87	18.35	1.495	-64	1.45	20.9		

Notes:  
 (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.  
 (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5)(12)(2.54)$   
 (3) The drawdown from the initial water level should not exceed 0.3 ft.  
 (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid w/ turbidimeter - rental and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ . START PURGE @ 1120  
INST. CONTROL PS  
MP 20 - RENTAL  
TURBIDIMETER - RENTAL  
INST. CONTROL PS  
MP 20 - RENTAL  
TURBIDIMETER - RENTAL  
W/ L METER - NFOAAZI

*Shirley Davidson*

WELL PURGING FIELD INFORMATION FORM

JOB# 37191-11

SITE/PROJECT NAME: Buffalo China

WELL# MWS

WELL PURGING INFORMATION

PURGE DATE 08/20/07

(MM DD YY)

SAMPLE DATE 08/21/07

(MM DD YY)

WATER VOL. IN CASING 0.33

(LITRES/GALLONS)

ACTUAL VOLUME PURGED 1.0

(LITRES/GALLONS)

PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED (C) N (CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED (C) N (CIRCLE ONE)

PURGING DEVICE [C] A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X- PURGING OTHER (SPECIFY)

SAMPLING DEVICE [G] C - BLADDER PUMP F - DIPPER BOTTLE X- SAMPLING OTHER (SPECIFY)

PURGING DEVICE [A] A - TEFLON D - PVC X- PURGING OTHER (SPECIFY)

SAMPLING DEVICE [A] C - POLYPROPYLENE X- SAMPLING OTHER (SPECIFY)

PURGING DEVICE [ ] A - TEFLON D - POLYPROPYLENE F - SILICONE X- PURGING OTHER (SPECIFY)

SAMPLING DEVICE [ ] C - ROPE X- SAMPLING OTHER (SPECIFY)

FILTERING DEVICES 0.45 [ ] A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM

FIELD MEASUREMENTS

WELL ELEVATION (m/ft)

GROUNDWATER ELEVATION (m/ft)

DEPTH TO WATER 7.56 (m/ft)

WELL DEPTH 9.62 (m/ft)

Table with 4 columns: pH, TURBIDITY, CONDUCTIVITY, SAMPLE TEMPERATURE. Rows show multiple measurements for each parameter.

FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: COLOR: TURBIDITY: WEATHER CONDITIONS: WIND SPEED DIRECTION PRECIPITATION Y/N OUTLOOK SPECIFIC COMMENTS: Dry at 1 gal.

Sampled on 8/21/07 at 1420.

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

CRA

DATE 8/24/08

PRINT Shawn McEvoy

SIGNATURE [Signature]

Sample ID WG-37191-050008-008  
Time 1420

MONITORING WELL RECORD FOR LOW-FLOW PURGING

CALC #  
4784

Project Name: Former Buffalo China  
Ref. No.: 37191

Date: 5-28-08  
Personnel: SG, DUT

Monitoring Well Data:

Well No.: MW-5  
Screen Length (ft): \_\_\_\_\_  
Measurement Point: \_\_\_\_\_  
Constructed Well Depth (ft): \_\_\_\_\_  
Measured Well Depth (ft): \_\_\_\_\_  
Depth of Sediment (ft): \_\_\_\_\_  
Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
Well Diameter, D (in): \_\_\_\_\_  
Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
Initial Depth to Water (ft): 4.42

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1347	70	5.28	0.86	6.63	14.1	1.77	226	3.97	64.8		
1352		5.39	0.98	6.57	14.2	1.71	218	2.54	55.8		
1357		5.47	1.05	6.57	14.8	1.68	207	2.74	62.3		
1402		5.52	1.10	6.57	14.1	1.69	201	2.77	57.1		
1407	70	5.61	1.19	6.57	14.0	1.70	193	2.70	61.3		

Inst. Control #15  
UL Meter NFO3172  
Horba U-22 NFO4288

- Notes:
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5 \times 12)(2.54)^3$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

Start Purge @ 1330  
David S. Ryan

**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

**Project Data:**

Project Name: Buffalo China  
 Ref. No.: 37191

Date: 1/20/09  
 Personnel: J. Williams

**Monitoring Well Data:**

Well No.: MW-5  
 Vapour PID (ppm): NM  
 Measurement Point: T.O.C.  
 Constructed Well Depth (m/ft): 8.9  
 Measured Well Depth (m/ft): 8.9  
 Depth of Sediment (m/ft): 0  
 Saturated Screen Length (m/ft): 5.0 ft.  
 Depth to Pump Intake (m/ft)<sup>1)</sup>: 7.5 ft.  
 Well Diameter, D (cm/in): 2.0 ft.  
 Well Screen Volume, V<sub>s</sub> (L)<sup>2)</sup>: 0.8 gallons  
 Initial Depth to Water (m/ft): 3.04 ft.

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm) ±0.005 or 0.01 <sup>4)</sup>	Turbidity NTU ±10 %	DO (mg/L) ±10 %	pH ±0.1 Units	ORP (mV) ±10 mV	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>5)</sup>
1335	300	3.70	0.66	6.6	1.03	54.1	0.50	6.78	106	1.5	0.48
1340	200	3.82	0.78	6.9	1.07	29.2	0.46	6.68	110	2.5	0.80
1345	100	3.74	0.70	6.9	1.06	27.8	0.42	6.73	108	3.0	0.97
1350	100	3.69	0.65	6.4	1.08	28.1	0.47	6.72	101	3.5	1.13
1355	100	3.67	0.63	6.3	1.08	28.0	0.48	6.70	99	4.0	1.30

**Notes:**

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi r^2 L$  in mL, where r (r=D/2) and L are in cm. For imperial units,  $V_s = (\pi^2/4) L^3 (2.54)^3$ , where r and L are in inches.
- The draw-down from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .
- For conductivity, the average value of three readings < 1 mS/cm ±0.005 mS/cm or where conductivity > 1 mS/cm ±0.01 mS/cm.



Sample ID WG-3791-072209-040  
Time 1225

CofC#

**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

Project Data: Project Name: Buffalo Chino Date: 7-22-09  
 Ref. No.: 3791 Personnel: SG/DAT

Monitoring Well Data: Well No.: MW-5 Screen Length (ft): \_\_\_\_\_  
 Measurement Point: \_\_\_\_\_ Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Constructed Well Depth (ft): \_\_\_\_\_ Well Diameter, D (in): \_\_\_\_\_  
 Measured Well Depth (ft): \_\_\_\_\_ Well Screen Volume, V<sub>s</sub> (mL)<sup>(3)</sup>: \_\_\_\_\_  
 Depth of Sediment (ft): \_\_\_\_\_ Initial Depth to Water (ft): 4.61

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(2)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1:55	70	5.19	0.58	7.54	21.16	2.29	-35	2.09	1.89		
2:00		5.37	0.76	7.73	19.08	2.16	-39	0.77	5.20		
2:05		5.41	0.80	7.58	19.08	2.07	-43	0.62	2.23		
2:10		5.47	0.86	7.46	19.28	1.99	-45	0.56	1.66		
2:15				7.39	18.82	1.90	-43	0.56	2.83		

Inst. Control #15  
 W/L Meter NFO5034  
 Turbidimeter NFO5042  
 MP20 Rental

Notes:  
 (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.  
 (2) The well screen volume will be based on a 5-foot screen length,  $V_p = P(D/2)^2(S/12)(2.54)$   
 (3) The drawdown from the initial water level should not exceed 0.3 ft.  
 (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged = V<sub>p</sub>/V<sub>s</sub>.

Start Page 1151  
 Start Page 1151  
 Start Page 1151





Sample ID WG-37191-072209-038  
Time 1145

DUP

**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

CofC #

**Project Data:**  
Project Name: Buffalo Chine  
Ref. No.: 37191

Date: 7-22-09  
Personnel: DST/SG

**Monitoring Well Data:**  
Well No.: NW-5A  
Measurement Point:  
Constructed Well Depth (ft):  
Measured Well Depth (ft):  
Depth of Sediment (ft):

Screen Length (ft):  
Depth to Pump Intake (ft)<sup>(1)</sup>:  
Well Diameter, D (in):  
Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>:  
Initial Depth to Water (ft): NM due to LNAPL

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>

10 Purge water  
100 Field Parameters taken due to only screen  
Purged well for 20 minutes then sampled

Inst. Control #15  
w/L Meter NFAS034  
Turbid. meter NFAS047  
MP-20 Rental

- Notes:**
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5)(1.25)$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged =  $V_p/V_s$ .

Start Purge @ 1123

Blind Dup WG-37191-072209-039  
Time 1230

Dave J. Lynn

# WELL PURGING FIELD INFORMATION FORM

JOB# 37191 -

SITE/PROJECT NAME: \_\_\_\_\_

WELL# \_\_\_\_\_ MW6

## WELL PURGING INFORMATION

PURGE DATE  
(MM DD YY) 08 | 20 | 07SAMPLE DATE  
(MM DD YY) - | - | - | - | - | -WATER VOL. IN CASING  
(LITRES/GALLONS) | | | | 0 | 0 | 4ACTUAL VOLUME PURGED  
(LITRES/GALLONS) | | | | 0 | 0 | 1

## PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED    
(CIRCLE ONE)SAMPLING EQUIPMENT.....DEDICATED    
(CIRCLE ONE)PURGING DEVICE  G A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X- \_\_\_\_\_  
B - PERISTALTIC PUMP E - PURGE PUMP H - WATERA@ PURGING OTHER (SPECIFY)SAMPLING DEVICE  C - BLADDER PUMP F - DIPPER BOTTLE X- \_\_\_\_\_  
SAMPLING OTHER (SPECIFY)PURGING DEVICE  A - TEFLON D - PVC X- \_\_\_\_\_  
B - STAINLESS STEEL E - POLYETHYLENE PURGING OTHER (SPECIFY)SAMPLING DEVICE  C - POLYPROPYLENE X- \_\_\_\_\_  
SAMPLING OTHER (SPECIFY)PURGING DEVICE  A - TEFLON D - POLYPROPYLENE F - SILICONE X- \_\_\_\_\_  
B - TYGON E - POLYETHYLENE G - COMBINATION PURGING OTHER (SPECIFY)SAMPLING DEVICE  C - ROPE X- \_\_\_\_\_  
TEFLON/POLYPROPYLENE SAMPLING OTHER (SPECIFY)FILTERING DEVICES 0.45  A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM

## FIELD MEASUREMENTS

WELL ELEVATION \_\_\_\_\_ (m/ft)

GROUNDWATER ELEVATION \_\_\_\_\_ (m/ft)

DEPTH TO WATER 9 | 0 | \_\_\_\_\_ (m/ft)

WELL DEPTH 9 | 0 | 9 | \_\_\_\_\_ (m/ft)

pH 6 | 3 | (std)

TURBIDITY 1 | 5 | 7 | (ntu)

CONDUCTIVITY 10 | 0 | 2 | 5 | (µm/cm) mS/cm

SAMPLE TEMPERATURE 1 | 6 | 6 | (°C)

\_\_\_\_\_ (std)

\_\_\_\_\_ (ntu)

\_\_\_\_\_ (µm/cm)

\_\_\_\_\_ (°C)

\_\_\_\_\_ (std)

\_\_\_\_\_ (ntu)

\_\_\_\_\_ (µm/cm)

\_\_\_\_\_ (°C)

\_\_\_\_\_ (std)

\_\_\_\_\_ (ntu)

\_\_\_\_\_ (µm/cm)

\_\_\_\_\_ (°C)

\_\_\_\_\_ (std)

\_\_\_\_\_ (ntu)

\_\_\_\_\_ (µm/cm)

\_\_\_\_\_ (°C)

\_\_\_\_\_ (std)

\_\_\_\_\_ (ntu)

\_\_\_\_\_ (µm/cm)

\_\_\_\_\_ (°C)

\_\_\_\_\_ (std)

\_\_\_\_\_ (ntu)

\_\_\_\_\_ (µm/cm)

\_\_\_\_\_ (°C)

## FIELD COMMENTS

SAMPLE APPEARANCE: cloudy ODOR: \_\_\_\_\_ COLOR: \_\_\_\_\_ TURBIDITY: \_\_\_\_\_

WEATHER CONDITIONS: WIND SPEED \_\_\_\_\_ DIRECTION \_\_\_\_\_ PRECIPITATION Y/N OUTLOOK \_\_\_\_\_

SPECIFIC COMMENTS \_\_\_\_\_

Dry at 1 volume.  
No recovery on 8/21/07. No sample collected.

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

CRA

DATE 1/24/08

PRINT Shawn McEvoy

SIGNATURE

Sample ID - W4-3/171-052000  
Time 0940

CoF #  
4784

**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

Project Name: Former Buffalo China  
Ref. No.: 37191

Date: 5-28-08  
Personnel: DJT, SEA

Monitoring Well Data:  
Well No.: MW-6  
Measurement Point:  
Constructed Well Depth (ft):  
Measured Well Depth (ft):  
Depth of Sediment (ft):

Screen Length (ft):  
Depth to Pump Intake (ft)<sup>(1)</sup>:  
Well Diameter, D (in):  
Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>:  
Initial Depth to Water (ft): 6.87

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
0852	60	7.25	0.38	6.13		2.35	-35	7.05	273.0		
0857	40	7.41	0.54	6.26		6.58	-39	6.58	232.0		
0902	50	7.49	0.62	6.30		8.20	-36	6.54	199.0		
0907	60	7.59	0.72	6.89		6.42					
0914	60	7.72	0.85	6.44		32.4	-2	5.41	166.7		
0919	50	7.80	0.93	6.44		41.3	5	4.73	24.7		
0924	50	7.88	1.01	6.44		35.1	11	4.68	8.8		
0929	50	7.98	1.11	6.44		32.5	19	4.56	0.0		
0934	50	8.03	1.16	6.43		31.2	22	4.50	1.4		

INST. CONTROL #S  
HORI BA - NFO4293  
W/L METER - NFO4417

- Notes:
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5 \times 12)(2.54)^3$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged =  $V_p/V_s$ .

START PURGE @ 0834

\* BATTERY ON SONDE WAS DYING @ 0905, REPLACED BATTERIES  
Date: 5/28/08

**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

**Project Data:**

Project Name: Buffalo China  
 Ref. No.: 37191

Date: 1/20/09  
 Personnel: J. Williams

**Monitoring Well Data:**

Well No.: MW-6  
 Vapour PID (ppm): NM  
 Measurement Point: R.O.C.  
 Constructed Well Depth (m/ft): 8.51  
 Measured Well Depth (m/ft): 8.5  
 Depth of Sediment (m/ft): 0

Saturated Screen Length (m/ft): 2.27 ft.  
 Depth to Pump Intake (m/ft)<sup>(1)</sup>: 7.5 ft.  
 Well Diameter, D (cm/in): 2.0 in.  
 Well Screen Volume, V<sub>s</sub> (L)<sup>(2)</sup>: 0.36 gallons  
 Initial Depth to Water (m/ft): 6.23 ft.

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm) ±0.005 or 0.01 m	Turbidity NTU ±10 %	DO (mg/L) ±10 %	pH ±0.1 Units	ORP (mV) ±10 mV	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1025	300	6.31	0.08	5.8	0.90	25.9	2.65	7.05	97	1.5	1.08
1030	300	6.39	0.16	6.0	0.88	21.8	3.25	7.07	69	3.0	2.2
1035	200	6.48	0.25	6.4	0.85	23.2	4.12	7.05	59	4.0	2.9
1040	200	6.50	0.27	6.3	0.86	22.8	4.08	7.08	63	5.0	3.6
1045	200	6.52	0.29	6.0	0.87	23.2	4.06	7.06	66	6.0	4.3

**Notes:**

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi r^2 L$  in mL, where r (r=D/2) and L are in cm. For Imperial units,  $V_s = \pi r^2 L \cdot (2.54)^3$ , where r and L are in inches.
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p / V_s$ .
- For conductivity, the average value of three readings < 1 mS/cm ± 0.005 mS/cm or where conductivity > 1 mS/cm ± 0.01 mS/cm.



SAMPLE ID: W4-37141-012204-035  
 SAMPLE TIME: 1110

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Name: FORMER BUFFALO CHINA  
 Ref. No.: 37191

Date: 7/22/09  
 Personnel: DJT/BSG

Monitoring Well Data:  
 Well No.: MW-6

CofC #

Measurement Point:  
 Constructed Well Depth (ft): \_\_\_\_\_  
 Measured Well Depth (ft): \_\_\_\_\_  
 Depth of Sediment (ft): \_\_\_\_\_

Screen Length (ft): \_\_\_\_\_  
 Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Well Diameter, D (in): \_\_\_\_\_  
 Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
 Initial Depth to Water (ft): 6.61

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1035	100	6.98	0.37	6.94	16.41	0.728	-23	2.75	8.40		
1040	110	7.12	0.51	6.91	16.30	0.621	-15	2.94	3.40		
1045	100	7.37	0.70	6.92	16.19	0.696	-9	3.04	2.88		
1050	100	7.53	0.92	6.93	16.09	0.649	-13	1.98	1.68		
1055	100	7.70	1.09	6.94	16.11	0.643	-12	2.03	2.97		
1100	100	7.82	1.21	6.99	16.14	0.639	-12	1.90	2.16		

- Notes:
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5)(2.54)^3$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

START PURGE @ 1028

INST. CONTROL #5  
 MP 20 - RENTAL  
 TURBIDIMETER - RENTAL  
 W/L METER - NFO4421

*James Hardin*

SAMPLE ID: W4-37141-072207 - 000  
 SAMPLE TIME: 1015

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Name: FORMER BUFFALO CHINA  
 Ref. No.: 37191

Date: 7/22/09  
 Personnel: DJT/SB

Monitoring Well Data:  
 Well No.: MW-6A  
 Measurement Point:  
 Constructed Well Depth (ft):  
 Measured Well Depth (ft):  
 Depth of Sediment (ft):

Screen Length (ft):  
 Depth to Pump Intake (ft):<sup>(1)</sup>  
 Well Diameter, D (in):  
 Well Screen Volume, V<sub>s</sub> (mL):<sup>(2)</sup>  
 Initial Depth to Water (ft): 4.83

COPC

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
0944	220	5.12	0.29	7.49	13.50	0.723	-195	1.08	299		
0949	220	5.20	0.37	7.51	13.46	0.738	-202	0.80	287		
0954	220	5.27	0.44	7.53	13.32	0.780	-210	0.90	269		
0959	220	5.31	0.48	7.54	13.32	0.842	-213	0.98	256		
1004	220	5.37	0.54	7.54	13.18	0.848	-219	0.99	249		
1009	220	5.40	0.57	7.54	13.20	0.859	-217	0.92	244		

Notes:  
 (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.  
 (2) The well screen volume will be based on a 5-foot screen length,  $V_{sp} = (D/2)^2 \cdot (5.12) \cdot (2.54)$   
 (3) The drawdown from the initial water level should not exceed 0.3 ft.  
 (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged =  $V_p/V_s$ . START PURGE @ 0935

INST. CONTROL #5  
 MP20 - RENTAL  
 TURBIDIMETER - RENTAL  
 W/T METER NF 04421

*John Stachurski*







**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

**Project Data:**

Project Name: Buffalo Chicks Date: 12/10/09  
 Ref. No.: 37191 Personnel: J.W. Mc-S

**Monitoring Well Data:**

Well No.: MW-7A  
 Vapour PID (ppm): N.M.  
 Measurement Point: T.O.C.  
 Constructed Well Depth (m/ft): 14.6  
 Measured Well Depth (m/ft): 14.6  
 Depth of Sediment (m/ft): 0

Saturated Screen Length (m/ft): 5.0 ft.  
 Depth to Pump Intake (m/ft)<sup>(1)</sup>: 12.0 ft.  
 Well Diameter, D (cm/in): 4.0 in.  
 Well Screen Volume, V<sub>s</sub> (L)<sup>(2)</sup>: 3.2 gallons  
 Initial Depth to Water (m/ft): 2.8 ft.

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C ±3 %	Conductivity (mS/cm) ±0.005 or 0.01 <sup>(5)</sup>	Turbidity NTU ±10 %	DO (µg/L) ±10 %	pH ±0.1 Units	ORP (mV) ±10 mV	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1300	300	3.01	0.21	10.9	1.54	89.8	0.61	6.81	-39	1.5	0.12
1305	200	3.03	0.23	11.4	1.54	55.3	0	6.76	-40	2.5	0.20
1310	200	3.04	0.24	11.1	1.57	49.9	0	6.74	-45	3.5	0.28
1315	200	3.05	0.25	10.9	1.58	38.4	0	6.72	-51	4.5	0.36

**Notes:**

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi r^2 L$  in mL, where r (r=D/2) and L are in cm. For Imperial units,  $V_s = \pi r^2 L \times (2.54)^3$ , where r and L are in inches.
- The drawdown from the initial water level should not exceed 0.3 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged = V<sub>p</sub>/V<sub>s</sub>.
- For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

SAMPLE ID: WG-37191-072209-024  
 SAMPLE TIME: 0845

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data: Project Name: FORMER BUFFALO CHINA Date: 7/22/09  
 Ref. No.: 37191 Personnel: DJT/SB

Monitoring Well Data: Well No.: MW-3A Screen Length (ft): \_\_\_\_\_  
 Measurement Point: \_\_\_\_\_ Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Constructed Well Depth (ft): \_\_\_\_\_ Well Diameter, D (in): \_\_\_\_\_  
 Measured Well Depth (ft): \_\_\_\_\_ Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
 Depth of Sediment (ft): \_\_\_\_\_ Initial Depth to Water (ft): 2.83

CoC#

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
0830	220	3.12	0.29	7.66	14.86	1.412	-236	1.85	18.1		
0835	220	3.12	0.29	7.66	14.90	1.410	-246	1.30	19.9		
0840		3.14	0.31	7.65	14.94	1.409	-251	1.41	20.1		

Notes:  
 (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.  
 (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi \cdot (D/2)^2 \cdot (5 \cdot 12) \cdot (2.5)$   
 (3) The drawdown from the initial water level should not exceed 0.3 ft.  
 (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid W/L METER - NFO4421 and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .  
 INST. CONTROL #5  
 MP.20 - RENTAL  
 TURBIDIMETER - RENTAL  
 W/L METER - NFO4421  
 START PURGE 0827  
 [Signature]

# WELL PURGING FIELD INFORMATION FORM

JOB# 37191 -     

SITE/PROJECT NAME: Buffalo China

WELL#                MW8

## WELL PURGING INFORMATION

082007

PURGE DATE  
(MM DD YY)

082107

SAMPLE DATE  
(MM DD YY)

          05

WATER VOL. IN CASING  
(LITRES/GALLONS)

          21

ACTUAL VOLUME PURGED  
(LITRES/GALLONS)

## PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

PURGING DEVICE  G A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X- \_\_\_\_\_  
B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING OTHER (SPECIFY)

SAMPLING DEVICE  G C - BLADDER PUMP F - DIPPER BOTTLE X- \_\_\_\_\_  
SAMPLING OTHER (SPECIFY)

PURGING DEVICE  A A - TEFLON D - PVC X- \_\_\_\_\_  
B - STAINLESS STEEL E - POLYETHYLENE PURGING OTHER (SPECIFY)

SAMPLING DEVICE  A C - POLYPROPYLENE X- \_\_\_\_\_  
SAMPLING OTHER (SPECIFY)

PURGING DEVICE  A - TEFLON D - POLYPROPYLENE F - SILICONE X- \_\_\_\_\_  
B - TYGON E - POLYETHYLENE G - COMBINATION PURGING OTHER (SPECIFY)

SAMPLING DEVICE  C - ROPE X- \_\_\_\_\_  
TEFLON/POLYPROPYLENE X- \_\_\_\_\_  
SAMPLING OTHER (SPECIFY)

FILTERING DEVICES 0.45  A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM

## FIELD MEASUREMENTS

WELL ELEVATION                     (m/ft)

GROUNDWATER ELEVATION                     (m/ft)

DEPTH TO WATER           4 5 1 (m/ft)

WELL DEPTH           7 8 8 (m/ft)

pH 7 2 4 (std)

TURBIDITY 2 6 4 (ntu)

CONDUCTIVITY 3 0 4 0 (µm/cm AT 25°C)

SAMPLE TEMPERATURE      1 7 1 (°C)

7 0 7 (std)

3 7 5 (ntu)

3 0 8 0 (µm/cm AT 25°C)

     1 7 4 (°C)

7 0 8 (std)

7 1 0 0 0 (ntu)

3 1 5 0 (µm/cm AT 25°C)

     1 7 0 (°C)

7 0 5 (std)

7 1 0 0 0 (ntu)

3 1 7 0 (µm/cm AT 25°C)

     1 7 3 (°C)

     (std)

     (ntu)

     (µm/cm AT 25°C)

     (°C)

## FIELD COMMENTS

SAMPLE APPEARANCE: \_\_\_\_\_ ODOR: \_\_\_\_\_ COLOR: \_\_\_\_\_ TURBIDITY: \_\_\_\_\_

WEATHER CONDITIONS: WIND SPEED \_\_\_\_\_ DIRECTION \_\_\_\_\_ PRECIPITATION Y/N OUTLOOK \_\_\_\_\_

SPECIFIC COMMENTS \_\_\_\_\_

Dry at 2.1 gal

Sampled on 8/21/07 at 1620.

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

CRA

1/24/08  
DATE

Shawn McEvoy  
PRINT

Shawn McEvoy  
SIGNATURE

Sample ID WG-37191-052008-005  
Time 1245

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Name: Former Buffalo China  
Ref. No.: 37191

Date: 5.28.00  
Personnel: SG, DJT

CofC #  
4784

Monitoring Well Data:  
Well No.: MW-8  
Measurement Point:  
Constructed Well Depth (ft):  
Measured Well Depth (ft):  
Depth of Sediment (ft):

Screen Length (ft):  
Depth to Pump Intake (ft)<sup>(1)</sup>:  
Well Diameter, D (in):  
Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>:  
Initial Depth to Water (ft): 2.52

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1148	100	3.67	1.15	7.05	13.4	0.96	-37	0.67	32.9		
1153	80	3.76	1.24	7.03	13.6	0.94	-51	0.21	17.2		
1158	75	3.82	1.30	7.07	13.9	0.93	-33	0.66	17.2		
1203		3.91	1.39	7.08	14.0	0.91	4	1.53	20.6		
1208				7.11	13.9	0.90	19	2.80	15.7		
1213	80	4.12	1.60	7.06	14.2	0.968	39	1.52	3.5		
1218		4.22	1.70	7.00	14.2	0.930	34	0.97	1.9		
1223				6.97	14.2	0.915	37	0.62	0.0		
1228		4.39	1.89	6.97	14.3	0.902	39	0.52	0.0		
1233				6.96	14.6	0.886	43	0.52	0.0		
1238				6.96	14.0	0.887	45	0.51	0.0		

Inst Control #'s  
w/L Meter MF03172  
Horiba U-22 NF04288

- Notes:
- The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5'12)(2.54)^3$
  - The drawdown from the initial water level should not exceed 0.3 ft.
  - Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

Start Purge @ 1135  
*[Signature]*



SAMPLE ID # WB-37191-030509 - 001  
 SAMPLE TIME: 1000

1 of 2

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Name: BUFFALO CHINA  
 Ref. No.: 37191

Date: 3/5/09  
 Personnel: SA, DD

CoFC #  
18083

Monitoring Well Data:  
 Well No.: MW-8  
 Measurement Point: BIOC  
 Constructed Well Depth (ft): \_\_\_\_\_  
 Measured Well Depth (ft): \_\_\_\_\_  
 Depth of Sediment (ft): \_\_\_\_\_

Screen Length (ft): \_\_\_\_\_  
 Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Well Diameter, D (in): 2  
 Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
 Initial Depth to Water (ft): 2.29

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
08450	100	3.29	-	7.17	5.05	1.54	71	2.74	21.0	1110	
08450	100	3.54	1.30	7.18	5.05	1.54	71	2.74	21.0	1110	
09000	75	3.71	1.42	7.15	5.43	1.37	43	2.63	21.9	1850	
09050	75	3.82	1.53	7.16	5.15	1.210	33	3.11	22.0	2025	
09100	75	3.94	1.65	7.18	5.44	1.08	27	3.43	19.5	2590	
09150	75	4.00	1.71	7.22	5.29	1.02	25	3.64	12.9	2965	
09200	75	4.11	1.82	7.25	5.44	1.04	26	3.53	9.3	3340	
09250	75	4.19	1.90	7.23	5.69	1.09	27	3.52	7.5	3715	
09300	75	4.28	1.99	7.23	5.69	1.11	29	1.94	5.0	4080	
09350	75	4.38	2.09	7.21	5.79	1.18	21	1.74	3.9	4455	
09400	75	4.48	2.19	7.24	6.01	1.25	32	1.57	2.9	4830	
09450	75	4.56	2.27	7.24	6.11	1.30	34	1.46	2.4	5195	
09500	75	4.64	2.35	7.25	6.39	1.35	35	1.36	1.8	5570	
09550	75	4.76	2.47	7.23	6.54	1.39	36	1.26	1.4	5950	

INST. CONTROL # 8  
 W/L METER NF05034  
 YSI 650MDS - NF04441

- Notes:
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_s = P(D/2)^2(5.12)(2.54)^3$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ . START PURGE @ 0840

*Sharon D. Austin*

### MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data: Project Name: Buttfield Chm  
Ref. No.: 057191

Date: 7/5/09  
Personnel: SJP/PP

ADP  
CDCF  
18083

Monitoring Well Data: Well No.: MW-8  
Measurement Point: NTOC  
Constructed Well Depth (ft): \_\_\_\_\_  
Measured Well Depth (ft): \_\_\_\_\_  
Depth of Sediment (ft): \_\_\_\_\_

Screen Length (ft): \_\_\_\_\_  
Depth to Pump Intake (ft): \_\_\_\_\_  
Well Diameter, D (in): 2  
Well Screen Volume, V<sub>s</sub> (mL): \_\_\_\_\_  
Initial Depth to Water (ft): 2.29

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
0959	75	4.86	2.57	6.37	1.446	36	1.19	20.8	8325	

Notes:  
(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.  
(2) The well screen volume will be based on a 5-foot screen length,  $V_s = P \cdot (D/2)^2 \cdot (5 \cdot 12)^2 \cdot (2.54)^3$   
(3) The drawdown from the initial water level should not exceed 0.3 ft.  
(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p / V_s$ .

MS Control #  
WIL meter NFO0034  
YSI 650 MDS - M844441

*John D. ...*

Sample ID 429-37191-072109-018  
Time 0925

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Name: Buffalo China  
Ref. No.:

Date: 7-21-09  
Personnel: DST/SSG

CofC# 19104

Monitoring Well Data:  
Well No.: MW-8  
Measurement Point:  
Constructed Well Depth (ft):  
Measured Well Depth (ft):  
Depth of Sediment (ft):

Screen Length (ft):  
Depth to Pump Intake (ft)<sup>(1)</sup>:  
Well Diameter, D (in):  
Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>:  
Initial Depth to Water (ft): 2.03

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
0913	80	3.49	0.46	7.09	18.66	1.83	-105	2.34	21.2		
0918		3.89	0.86	7.11	18.47	1.82	-119	0.73	14.2		
0923		3.54	1.51	7.13	18.40	1.81	-121	0.63	15.9		

Inst. Control #'s  
W/L Meter UF05034  
MP-20 Rental  
Turbidimeter Rental  
UF05042

- Notes:
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5)(12)(2.54)^3$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged =  $V_p/V_s$ .

Start Purge @ 0910

*[Signature]*



# WELL PURGING FIELD INFORMATION FORM

JOB# 37191 -     

SITE/PROJECT NAME: Buffalo China

WELL#                MW9

## WELL PURGING INFORMATION

082007  
PURGE DATE  
(MM DD YY)

082107  
SAMPLE DATE  
(MM DD YY)

     02  
WATER VOL. IN CASING  
(LITRES/GALLONS)

     07  
ACTUAL VOLUME PURGED  
(LITRES/GALLONS)

## PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

PURGING DEVICE  G A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X- \_\_\_\_\_  
B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRAΦ PURGING OTHER (SPECIFY)

SAMPLING DEVICE  G C - BLADDER PUMP F - DIPPER BOTTLE X- \_\_\_\_\_  
SAMPLING OTHER (SPECIFY)

PURGING DEVICE  A A - TEFLON D - PVC X- \_\_\_\_\_  
B - STAINLESS STEEL E - POLYETHYLENE PURGING OTHER (SPECIFY)

SAMPLING DEVICE  A C - POLYPROPYLENE X- \_\_\_\_\_  
SAMPLING OTHER (SPECIFY)

PURGING DEVICE  A - TEFLON D - POLYPROPYLENE F - SILICONE X- \_\_\_\_\_  
B - TYGON E - POLYETHYLENE G - COMBINATION PURGING OTHER (SPECIFY)

SAMPLING DEVICE  C - ROPE X- \_\_\_\_\_  
TEFLON/POLYPROPYLENE X- \_\_\_\_\_  
SAMPLING OTHER (SPECIFY)

FILTERING DEVICES 0.45  A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM

## FIELD MEASUREMENTS

WELL ELEVATION      (m/ft)

GROUNDWATER ELEVATION      (m/ft)

DEPTH TO WATER 5.06 (m/ft)

WELL DEPTH 16.41 (m/ft)

pH 7.37 (std)

TURBIDITY 789 (ntu)

CONDUCTIVITY 1730 (µm/cm AT 25°C)

SAMPLE TEMPERATURE 16.1 (°C)

7.62 (std)

71000 (ntu)

1700 (µm/cm AT 25°C)

15.8 (°C)

7.30 (std)

71000 (ntu)

1690 (µm/cm AT 25°C)

15.7 (°C)

     (std)

     (ntu)

     (µm/cm AT 25°C)

     (°C)

     (std)

     (ntu)

     (µm/cm AT 25°C)

     (°C)

## FIELD COMMENTS

SAMPLE APPEARANCE: \_\_\_\_\_ ODOR: \_\_\_\_\_ COLOR: \_\_\_\_\_ TURBIDITY: \_\_\_\_\_

WEATHER CONDITIONS: WIND SPEED \_\_\_\_\_ DIRECTION \_\_\_\_\_ PRECIPITATION Y/N OUTLOOK \_\_\_\_\_

SPECIFIC COMMENTS Dry at 0.7 gal

Sampled on 8/21/07 at 1730.

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

CRA

1/24/08  
DATE

Shawn McEvoy  
PRINT

Shawn McEvoy  
SIGNATURE

Sample ID WGT-37191-050808-001  
Time 1015

**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

Project Data: Project Name: Former Buffalo Chine  
Ref. No.: 37191

Date: 5/28/08  
Personnel: SG, DJT

CofC #  
4784

Monitoring Well Data: Well No.: MW9  
Measurement Point:  
Constructed Well Depth (ft):  
Measured Well Depth (ft):  
Depth of Sediment (ft):

Screen Length (ft):  
Depth to Pump Intake (ft)<sup>(1)</sup>:  
Well Diameter, D (in):  
Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>:  
Initial Depth to Water (ft): 1.71

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
0902		2.11	0.40	5.99	12.0	1.26	266	1.68	153		
0912	100	2.16	0.45	6.21	12.2	1.29	216	0.99	82		
0917		2.17	0.46	6.22	12.4	1.31	201	0.63	72.1		
0922		2.18	0.47	6.25	12.4	1.36	165	0.43	32.1		
0927				6.26	12.8	1.41	132	0.40	26.6		
0932		2.20	0.49	6.30	12.9	1.42	101	0.26	35.1		
0937		2.21	0.50	6.31	12.9	1.44	84	0.15	16.1		
0942				6.30	13.1	1.45	69	0.20	15.4		
0947				6.34	13.2	1.47	56	0.17	8.2		

Inst. Control #15  
w/c Meter NFO3172  
Horiba 0-22 NFO4288

Notes:  
(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.  
(2) The well screen volume will be based on a 5-foot screen length,  $V_s = p \cdot (D/2)^2 \cdot (5 \cdot 12) \cdot (2.54)^3$   
(3) The drawdown from the initial water level should not exceed 0.3 ft.  
(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged =  $V_p/V_s$ .  
Start Purge @ 0853

*David J. Egan*

**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

**Project Data:**

Project Name: Buffalo China  
 Ref. No.: 37191

Date: 1/19/09  
 Personnel: AW/llk/s

**Monitoring Well Data:**

Well No.: MW-9  
 Vapour PID (ppm): NM  
 Measurement Point: TOC  
 Constructed Well Depth (m/ft): 6.02 ft.  
 Measured Well Depth (m/ft): 6 ft.  
 Depth of Sediment (m/ft): 0.02 ft.

Saturated Screen Length (m/ft): 4.6 ft.  
 Depth to Pump Intake (m/ft)<sup>(1)</sup>: 4.0 ft.  
 Well Diameter, D (cm/in): 2.0 in.  
 Well Screen Volume, V<sub>s</sub> (L)<sup>(2)</sup>: 0.74 gallons  
 Initial Depth to Water (m/ft): 1.39 ft.

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm) ±0.005 or 0.01 <sup>(5)</sup>	Turbidity NTU ±10 %	DO (mg/L) ±10 %	pH ±0.1 Units	ORP (mV) ±10 mV	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1055	200	1.43	0.04	NM	0.999	28.2	6.59	7.25	NA	1.0	0.35
1100	100	1.59	0.2	3.9	0.773	22.6	2.5	7.04	NA	1.5	0.52
1105	100	1.57	0.18	4.9	0.650	21.2	1.9	7.03	NA	2.0	0.70
1110	100	1.57	0.18	5.1	0.675	9.8	2.1	7.02	NA	2.5	0.87
1115	100	1.57	0.18	5.1	0.675	6.0	2.1	7.01	NA	3.0	1.05

**Notes:**

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = r^2 \pi L$  in mL, where r (r=D/2) and L are in cm. For Imperial units,  $V_s = r^2 \pi L \cdot (2.54)^3$ , where r and L are in inches.
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p / V_s$ .
- For conductivity, the average value of three readings < 1 mS/cm ±0.005 mS/cm or where conductivity > 1 mS/cm ±0.01 mS/cm.

SAMPLE ID: WG-37191-072109-015  
 SAMPLE TIME: 0900

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data: Project Name: FORMER BUFFALO CHINA  
 Ref. No.: 37191

Date: 7/21/09  
 Personnel: DJT/SS

Monitoring Well Data: Well No.: MW-9  
 Measurement Point: \_\_\_\_\_  
 Constructed Well Depth (ft): \_\_\_\_\_  
 Measured Well Depth (ft): \_\_\_\_\_  
 Depth of Sediment (ft): \_\_\_\_\_

Screen Length (ft): \_\_\_\_\_  
 Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Well Diameter, D (in): \_\_\_\_\_  
 Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
 Initial Depth to Water (ft): 2.25

CoC#  
 19104

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> Screen Volumes Purged <sup>(4)</sup> (mL)		No. of Well Screen Volumes Purged <sup>(4)</sup>
0840	100	2.52	0.27	6.68	16.27	1.75	48	2.01	13.8			
0845	100	2.65	0.40	6.60	16.29	1.75	42	1.49	10.8			
0850	100	2.75	0.50	6.60	16.50	1.76	38	1.41	13.4			

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5)(2.54)$
- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purged water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged =  $V_p/V_s$ .

INST. CONTROL BS  
 MP.20 - RENTAL  
 TURBIDIMETER - RENTAL  
 W/L METER - NFO 4421

START PURGE @ 0833

*Shaun Walden*

Sample ID W9-37191-012109-017  
 Time 0855

**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

Project Data: Project Name: Buffalo China  
 Ref. No.: 37191

Date: 7-21-09  
 Personnel: SG/DJT

CofC # 19104

Monitoring Well Data: Well No.: MW9A  
 Measurement Point:  
 Constructed Well Depth (ft):  
 Measured Well Depth (ft):  
 Depth of Sediment (ft):

Screen Length (ft):  
 Depth to Pump Intake (ft):  
 Well Diameter, D (in):  
 Well Screen Volume, V<sub>s</sub> (mL):  
 Initial Depth to Water (ft): 11.18

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
0840	200	11.18	0.00	6.77	13.59	2.06	-54	2.30	96.8		
0845				7.04	12.51	2.00	-113	1.22	103		
0850		11.18	0.00	7.11	12.39	2.09	-125	0.83	52.1		
0855				7.15	12.52	2.04	-130	0.66	38.7		

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length,  $V_s = p(D/2)^2(5 \cdot 12)(2.54)$
- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged =  $V_p/V_s$ .

Inst Control #'s  
 W/L Meter NF05034  
 MP-20 Rental  
 Turbidimeter Rental

Start Page C 0836

*David Taylor*

MONITORING WELL RECORD FOR LOW-FLOW PURGING

**Project Data:**

Project Name: Buffalo China  
 Ref. No.: 37191

Date: 11/19/09  
 Personnel: D. Williams

**Monitoring Well Data:**

Well No.: MW-9A  
 Vapour PID (ppm): NM  
 Measurement Point: 70.C.  
 Constructed Well Depth (m/ft): 26.0 ft.  
 Measured Well Depth (m/ft): 26.0 ft.  
 Depth of Sediment (m/ft): 0 ft.

Saturated Screen Length (m/ft): 16.8 ft. (concrete)  
 Depth to Pump Intake (m/ft)<sup>(1)</sup>: 23.0 ft.  
 Well Diameter, D (cm/in): 4.0 in.  
 Well Screen Volume, V<sub>s</sub> (L)<sup>(2)</sup>: 10.75 gallons  
 Initial Depth to Water (m/ft): 11.0 ft.

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1210	300	11.02	0.02	10.1	0.206	302	2.43	6.74	-78	1.5	0.04
1215	300	11.02	0.02	10.2	0.335	227	1.14	6.77	-94	3.0	0.07
1220	300	11.02	0.02	10.2	0.603	190	0.49	6.77	-112	4.5	0.11
1225	300	11.02	0.02	10.2	0.607	166	0.37	6.77	-117	6.0	0.14
1230	300	11.02	0.02	10.2	0.607	148	0.36	6.77	-119	7.5	0.18

**Notes:**

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi(r^2)L$  in mL, where r (=D/2) and L are in cm. For Imperial units,  $V_s = \pi(r^2)L \cdot (2.54)^3$ , where r and L are in inches.
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .
- (5) For conductivity, the average value of three readings < 1 mS/cm ± 0.005 mS/cm or where conductivity > 1 mS/cm ± 0.01 mS/cm.



**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

**Project Data:**

Project Name: Buffalo China Date: 1/22/09  
 Ref. No.: 27191 Personnel: T. Williams

**Monitoring Well Data:**

Well No.: MW-10 Saturated Screen Length (m/ft): < 2.0 ft.  
 Vapour PID (ppm): NM Depth to Pump Intake (m/ft): ~ 9.0 ft.  
 Measurement Point: T.O.C. Well Diameter, D (cm/in): 2.0 in.  
 Constructed Well Depth (m/ft): NM Well Screen Volume, V<sub>s</sub> (L): 0.32 gallons  
 Measured Well Depth (m/ft): NM Initial Depth to Water (m/ft): 7.67 ft.  
 Depth of Sediment (m/ft): -

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level (m/ft)	Temperature °C	Conductivity (µS/cm)	Turbidity NTL	DO (mg/L)	pH	ORP (mV)	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged
1045	7.71	0.04	200	9.1	0.001	223	12.1	7.12	185	1.0	0.80
1050	7.73	0.06	200	7.1	0.001	258	12.6	7.27	181	2.0	1.60
1055	7.75	0.08	200	6.7	0.002	242	12.3	7.35	179	3.0	2.40
1100	7.76	0.09	200	6.6	0.001	238	11.9	7.39	178	4.0	3.20
1105	7.78	0.11	200	7.3	0.001	241	11.5	7.39	180	5.0	4.0

**Notes:**

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_p = (r^2 - R^2)L$  in mL, where r (r=D/2) and L are in cm. For imperial units,  $V_p = (r^2 - R^2)L \cdot (2.54)^3$ , where r and L are in inches.
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p / V_s$ .
- (5) For conductivity, the average value of three readings < 1 mS/cm ± 0.005 mS/cm or where conductivity > 1 mS/cm ± 0.01 mS/cm.

Sample ID 46-3791-072009-011  
Time 1500

ColC #  
19127

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Name: Buffalo China  
Ref. No.: 37191

Date: 7-20-09  
Personnel: DJI/SG

Monitoring Well Data:  
Well No.: MCW-10  
Measurement Point:  
Constructed Well Depth (ft):  
Measured Well Depth (ft):  
Depth of Sediment (ft):

Screen Length (ft):  
Depth to Pump Intake (ft)<sup>(1)</sup>:  
Well Diameter, D (in):  
Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>:  
Initial Depth to Water (ft): 7.63

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> Screen Volumes Purged <sup>(4)</sup>	
										(mL)	No. of Well
1450		7.73	0.10	7.79	20.45	1.209	102	2.11	5.27		
1550	90	7.78	0.13	7.84	18.45	1.175	122	1.73	1.53		
1500		7.82	0.19	7.96	17.82	1.147	133	1.39	0.53		

Inst. Control #'s  
w/L Meter NF05034  
MP-20 Rental  
Turb. Meter Rental  
Dad Jager

- Notes:
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_s = p \cdot (D/2)^2 \cdot (5 \cdot 12) \cdot (2.54)^3$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged =  $V_p/V_s$ .

Start Page @ 1446



**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

**Project Data:**

Project Name: Buffalo Chubra      Date: 1/22/09  
 Ref. No.: 37191      Personnel: S.W. Williams

**Monitoring Well Data:**

Well No.: MW-11  
 Vapour PID (ppm): NM  
 Measurement Point: T.O.C.  
 Constructed Well Depth (m/ft): NM  
 Measured Well Depth (m/ft): NM  
 Depth of Sediment (m/ft): NM

Saturated Screen Length (m/ft): 5.0 ft.  
 Depth to Pump Intake (m/ft)<sup>1)</sup>: ~ 7.5 ft.  
 Well Diameter, D (cm/in): 2.0 in.  
 Well Screen Volume, V<sub>s</sub> (L)<sup>2)</sup>: 0.8 gallons  
 Initial Depth to Water (m/ft): 5.42 ft.

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>4)</sup>
1225	300	5.52	0.10	6.0	0.002	236	10.9	7.70	184	1.5	0.48
1230	200	5.56	0.14	7.8	0.002	235	10.1	7.72	182	2.5	0.80
1235	200	5.59	0.17	7.9	0.002	235	10.1	7.62	184	3.5	1.13
1240	200	5.61	0.19	8.2	0.002	235	10.1	7.65	185	4.5	1.45

**Notes:**

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi \cdot (r^2) \cdot L$  in mL, where r (r=D/2) and L are in cm. For Imperial units,  $V_s = \pi \cdot (r^2) \cdot L \cdot (2.54)^3$ , where r and L are in inches.
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p / V_s$ .
- For conductivity, the average value of three readings < 1 mS/cm ±0.005 mS/cm or where conductivity > 1 mS/cm ±0.01 mS/cm.

Sample ID W6-37191-072009-006  
Time 1340

MONITORING WELL RECORD FOR LOW-FLOW PURGING

CofC #  
9127

Date: 7-20-09  
Personnel: DST/SS

Project Name: Buffalo Chino  
Ref. No.: 37191

Monitoring Well Data:  
Well No.: MW-11  
Screen Length (ft):  
Depth to Pump Intake (ft)<sup>(1)</sup>:  
Well Diameter, D (in):  
Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>:  
Initial Depth to Water (ft): 5.96

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1313	50	6.12	0.16	7.24	21.16	2.95	-98	2.08	115		
1318		6.19	0.23	7.72	20.04	2.38	-75	0.59	91.3		
1323	60	6.27	0.31	7.77	19.99	1.68	-14	0.77	70		
1328		6.33	0.37	7.67	20.41	1.441	33	1.09	50.5		
1333		6.41	0.45	7.66	20.59	1.330	59	1.25	25.1		
1338				7.65	20.82	1.351	71	1.20	20.2		

Inst. Control #15  
w/k Meter UF05034  
MP-20 Rental  
Turb. Meter Rental  
Paul Sydn

- Notes:
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5)(12)(2.54)$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged =  $V_p/V_s$ .

Start Purge @ 1309

# WELL PURGING FIELD INFORMATION FORM

JOB# 37191

SITE/PROJECT NAME: Buffalo China

WELL# MW12

## WELL PURGING INFORMATION

082007

PURGE DATE  
(MM DD YY)

082107

SAMPLE DATE  
(MM DD YY)

02144

WATER VOL. IN CASING  
(LITRES/GALLONS)

06

ACTUAL VOLUME PURGED  
(LITRES/GALLONS)

## PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED  N  
(CIRCLE ONE)

PURGING DEVICE	<input checked="" type="checkbox"/> G	A - SUBMERSIBLE PUMP	D - GAS LIFT PUMP	G - BAILER	X-	
		B - PERISTALTIC PUMP	E - PURGE PUMP	H - WATERA®	X-	PURGING OTHER (SPECIFY)
SAMPLING DEVICE	<input checked="" type="checkbox"/> G	C - BLADDER PUMP	F - DIPPER BOTTLE		X-	SAMPLING OTHER (SPECIFY)
PURGING DEVICE	<input checked="" type="checkbox"/> A	A - TEFLON	D - PVC		X-	
		B - STAINLESS STEEL	E - POLYETHYLENE		X-	PURGING OTHER (SPECIFY)
SAMPLING DEVICE	<input checked="" type="checkbox"/> A	C - POLYPROPYLENE			X-	SAMPLING OTHER (SPECIFY)
PURGING DEVICE	<input type="checkbox"/>	A - TEFLON	D - POLYPROPYLENE	F - SILICONE	X-	
		B - TYGON	E - POLYETHYLENE	G - COMBINATION	X-	PURGING OTHER (SPECIFY)
SAMPLING DEVICE	<input type="checkbox"/>	C - ROPE	X- _____	TEFLON/POLYPROPYLENE	X-	SAMPLING OTHER (SPECIFY)
			(SPECIFY)			

FILTERING DEVICES 0.45  A - IN-LINE DISPOSABLE    B - PRESSURE    C - VACUUM

## FIELD MEASUREMENTS

WELL ELEVATION	<u>1071</u>	(m/ft)	GROUNDWATER ELEVATION	<u>1205</u>	(m/ft)
DEPTH TO WATER	<u>1071</u>	(m/ft)	WELL DEPTH	<u>1205</u>	(m/ft)
pH	<u>7.5</u> (std)	TURBIDITY	<u>140</u> (ntu)	CONDUCTIVITY	<u>2190</u> (µm/cm) AT 25°C
<u>7.2</u> (std)	<u>265</u> (ntu)	<u>2190</u> (µm/cm) AT 25°C	<u>143</u> (°C)		
<u>7.26</u> (std)	<u>102</u> (ntu)	<u>2170</u> (µm/cm) AT 25°C	<u>141</u> (°C)		
<u>  </u> (std)	<u>  </u> (ntu)	<u>  </u> (µm/cm) AT 25°C	<u>  </u> (°C)		
<u>  </u> (std)	<u>  </u> (ntu)	<u>  </u> (µm/cm) AT 25°C	<u>  </u> (°C)		

## FIELD COMMENTS

SAMPLE APPEARANCE: \_\_\_\_\_ ODOR: \_\_\_\_\_ COLOR: \_\_\_\_\_ TURBIDITY: \_\_\_\_\_

WEATHER CONDITIONS: WIND SPEED \_\_\_\_\_ DIRECTION \_\_\_\_\_ PRECIPITATION Y/N \_\_\_\_\_ OUTLOOK \_\_\_\_\_

SPECIFIC COMMENTS: Day at 0.6 gal

Sampled on 8/21/07 at 1510.

Blind duplicate sampled on 8/21/07 at 1545.

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

CRA 1/24/08 DATE    Shawn McEvoy PRINT    Shawn McEvoy SIGNATURE

ID 064-37191-052808-007

SAMPLE ID 064-57191-052808-006

Time 1600

TIME 1445

DOP

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Name: FORMER Y CHINA  
 Ref. No.: 37191

Buffalo

Date: 5-28-08  
 Personnel: DJT 369

LOFL #  
4784

Monitoring Well Data:  
 Well No.: MW-12  
 Measurement Point:  
 Constructed Well Depth (ft):  
 Measured Well Depth (ft):  
 Depth of Sediment (ft):

9.15-2.01  
7.14

Screen Length (ft):  
 Depth to Pump Intake (ft)<sup>(1)</sup>:  
 Well Diameter, D (in):  
 Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>:  
 Initial Depth to Water (ft): 9.15

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1324	120	9.42	0.27	6.32	> 99.9	105	4.28	285.0			
1329	110	9.54	0.39	6.39	> 99.9	107	4.05	260.0			
1334	100	9.61	0.46	6.40	> 99.9	109	3.90	250.0			
1339	100	9.71	0.56	6.43	> 99.9	103	2.63	233.0			
1344	100	9.81	0.66	6.39	> 99.9	102	3.21	230.0			
1349	100	9.88	0.73	6.41	> 99.9	96	3.18	228.0			
1354	100	9.98	0.83	6.43	> 99.9	94	3.24	221.0			

Notes:  
 (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.  
 (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5'12)(2.54)$   
 (3) The drawdown from the initial water level should not exceed 0.3 ft.  
 (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged = V<sub>p</sub>/V<sub>s</sub>

INST. CONTROL #S  
 HORIBA - NFO4293  
 W/L METER - NFO3172

START PURGE @ 1315  
 David J. [signature]

**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

Project Name: Buffalo China Date: 1/13/08  
 Ref. No.: 37191 Personnel: J. Williams

Monitoring Well Data:  
 Well No.: MW-12  
 Vapour PID (ppm): NM  
 Measurement Point: T.O.C.  
 Constructed Well Depth (m/ft): 12.7 ft  
 Measured Well Depth (m/ft): 12.1 ft  
 Depth of Sediment (m/ft): 0.6 ft

Saturated Screen Length (m/ft): 4.01 ft  
 Depth to Pump Intake (m/ft): 10 ft  
 Well Diameter, D (cm/in): 2.0 in  
 Well Screen Volume,  $V_s$  (L): 0.64 gallons  
 Initial Depth to Water (m/ft): 3.09 ft

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Dissolved from Initial Water Level <sup>1</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, $V_p$ (L)	No. of Well Screen Volumes Purged <sup>2</sup>
1410	200	8.60	0.51	7.3	0.200	39.4	2.74	6.87	NM	1.0	0.4
1415	100	8.70	0.61	6.6	0.224	37.7	2.95	6.86	NM	1.5	0.6
1420	100	8.81	0.72	6.5	0.230	26.2	3.0	6.88	NM	2.0	0.8
1425	100	8.82	0.73	6.4	NM	16.1	3.2	6.87	NM	2.5	1.0

Notes:  
 (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.  
 (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_p = \pi r^2 L$ , where r and L are in cm. For Imperial units,  $V_p = \pi r^2 L (2.54)^3$ , where r and L are in inches.  
 (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min. and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged:  $V_p/V_s$ .  
 (5) For conductivity, the average value of three readings < 1 mS/cm ±0.005 mS/cm or where conductivity > 1 mS/cm ±0.01 mS/cm.

Sample ID W9-37191-072204-036  
Time 1115

CofC #

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data: Project Name: Buffalo China Date: 7.22.09  
 Ref. No.:                      Personnel: DJI  
       
 Monitoring Well Data: Well No.: MW-12 Screen Length (ft):                       
 Measurement Point:    Depth to Pump Intake (ft)<sup>(1)</sup>:                       
 Constructed Well Depth (ft):                                  Well Diameter, D (in):                       
 Measured Well Depth (ft):                                  Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>:                       
 Depth of Sediment (ft):                                  Initial Depth to Water (ft): 8.97

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> Screen Volumes Purged <sup>(4)</sup>	No. of Well
										(mL)	
1056	70	9.16	0.19	7.36	17.92	0.912	105	1.42	152		
1101	70	9.27	0.30	7.40	17.59	0.862	94	0.86	133		
1106				7.34	17.86	0.830	70	0.80	110		
1111		9.30	0.41	7.37	17.89	0.817	34	0.80	46.9		

Inst. Control #5  
 w/ K Meter NFAS034  
 Turbidimeter NFAS012  
 MP-20 Rabel

David S. Gray

- Notes:
- The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft. above any sediment accumulated at the well bottom.
  - The well screen volume will be based on a 5-foot screen length,  $V_p = \pi(D/2)^2(5)(12)(2.54)$
  - The drawdown from the initial water level should not exceed 0.3 ft.
  - Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

Start Page @ 1050



# WELL PURGING FIELD INFORMATION FORM

JOB# 37191 -     

SITE/PROJECT NAME: \_\_\_\_\_

WELL#                MW13

## WELL PURGING INFORMATION

082007

PURGE DATE  
(MM DD YY)

SAMPLE DATE  
(MM DD YY)

WATER VOL. IN CASING  
(LITRES/GALLONS)

ACTUAL VOLUME PURGED  
(LITRES/GALLONS)

## PURGING AND SAMPLING EQUIPMENT

PURGING EQUIPMENT.....DEDICATED    
(CIRCLE ONE)

SAMPLING EQUIPMENT.....DEDICATED    
(CIRCLE ONE)

PURGING DEVICE  G A - SUBMERSIBLE PUMP D - GAS LIFT PUMP G - BAILER X- \_\_\_\_\_  
B - PERISTALTIC PUMP E - PURGE PUMP H - WATERRA® PURGING OTHER (SPECIFY)

SAMPLING DEVICE  G C - BLADDER PUMP F - DIPPER BOTTLE X- \_\_\_\_\_  
SAMPLING OTHER (SPECIFY)

PURGING DEVICE  A - TEFLON D - PVC X- \_\_\_\_\_  
B - STAINLESS STEEL E - POLYETHYLENE PURGING OTHER (SPECIFY)

SAMPLING DEVICE  C - POLYPROPYLENE X- \_\_\_\_\_  
SAMPLING OTHER (SPECIFY)

PURGING DEVICE  A - TEFLON D - POLYPROPYLENE F - SILICONE X- \_\_\_\_\_  
B - TYGON E - POLYETHYLENE G - COMBINATION PURGING OTHER (SPECIFY)

SAMPLING DEVICE  C - ROPE X- \_\_\_\_\_  
(SPECIFY) SAMPLING OTHER (SPECIFY)

FILTERING DEVICES 0.45  A - IN-LINE DISPOSABLE B - PRESSURE C - VACUUM

## FIELD MEASUREMENTS

WELL ELEVATION                               (m/ft)

GROUNDWATER ELEVATION                               (m/ft)

DEPTH TO WATER                               (m/ft)

WELL DEPTH                               (m/ft)

pH      (std)

TURBIDITY      (ntu)

CONDUCTIVITY      (µm/cm) AT 25°C

SAMPLE TEMPERATURE      (°C)

     (std)

     (ntu)

     (µm/cm) AT 25°C

     (°C)

     (std)

     (ntu)

     (µm/cm) AT 25°C

     (°C)

     (std)

     (ntu)

     (µm/cm) AT 25°C

     (°C)

## FIELD COMMENTS

SAMPLE APPEARANCE: \_\_\_\_\_ ODOR: \_\_\_\_\_ COLOR: \_\_\_\_\_ TURBIDITY: \_\_\_\_\_

WEATHER CONDITIONS: WIND SPEED \_\_\_\_\_ DIRECTION \_\_\_\_\_ PRECIPITATION Y/N \_\_\_\_\_ OUTLOOK \_\_\_\_\_

SPECIFIC COMMENTS

well had been developed on 8/3/07. Purged to dry.

well was still dry on 8/20/07. No sample collected

I CERTIFY THAT SAMPLING PROCEDURES WERE IN ACCORDANCE WITH APPLICABLE CRA PROTOCOLS

CRA

1/24/08  
DATE

Shawn McEvoy  
PRINT

[Signature]  
SIGNATURE

### MONITORING WELL RECORD FOR LOW-FLOW PURGING

**Project Data:** Project Name: FORMER BUFFALO CHINA  
 Ref. No.: 37191

Date: 5-28-08  
 Personnel: DJT, SS

**Monitoring Well Data:** Well No.: MW-13  
 Measurement Point: \_\_\_\_\_  
 Constructed Well Depth (ft): \_\_\_\_\_  
 Measured Well Depth (ft): \_\_\_\_\_  
 Depth of Sediment (ft): \_\_\_\_\_

Screen Length (ft): \_\_\_\_\_  
 Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Well Diameter, D (in): \_\_\_\_\_  
 Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
 Initial Depth to Water (ft): 6.49

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
		well DRY									

**Notes:**  
 (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.  
 (2) The well screen volume will be based on a 5-foot screen length,  $V_s = P \cdot (D/2)^2 \cdot (5 \cdot 12) \cdot (2.54)^3$   
 (3) The drawdown from the initial water level should not exceed 0.3 ft.  
 (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged =  $V_p/V_s$ .

START PURGE @ 1035  
 David Lynn





**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

**Project Data:**

Project Name: Buffalo China  
 Ref. No.: 37191

Date: 1/19/09  
 Personnel: J. Williams

**Monitoring Well Data:**

Well No.: MW-13A  
 Vapour PID (ppm): NM  
 Measurement Point: T.D.C.  
 Constructed Well Depth (m/ft): 14.4 ft.  
 Measured Well Depth (m/ft): 14.4 ft.  
 Depth of Sediment (m/ft): 0 ft.

Saturated Screen Length (m/ft): 4.5 ft. (concrete)  
 Depth to Pump Intake (m/ft)<sup>(1)</sup>: 12.5 ft.  
 Well Diameter, D (cm/in): 4.0 in.  
 Well Screen Volume, V<sub>s</sub> (L)<sup>(2)</sup>: 2.9 gallons  
 Initial Depth to Water (m/ft): 6.01 ft.

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm)	Turbidity NTU	DO (mg/L)	pH	ORP (mV)	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1415	300	6.08	0.07	8.8	0.90	213	5.51	6.64	83	1.5	0.13
1420	200	6.11	0.10	8.7	0.90	149	4.21	6.73	76	2.5	0.22
1425	200	6.13	0.12	8.7	0.90	130	1.89	6.77	62	3.5	0.31
1430	200	6.15	0.14	8.7	0.90	147	1.95	6.75	64	4.5	0.40
1435	200	6.16	0.15	8.8	0.90	153	1.91	6.78	63	5.5	0.49

**Notes:**

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi r^2 L$  in mL, where r (=D/2) and L are in cm. For Imperial units,  $V_s = \pi r^2 L \cdot (2.54)^3$ , where r and L are in inches.
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p / V_s$ .
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.





**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

**Project Data:**

Project Name: Buffalo China Date: 1/22/09  
 Ref. No.: 37191 Personnel: J.W. Williams

**Monitoring Well Data:**

Well No.: MW-14A  
 Vapour PID (ppm): NM  
 Measurement Point: T.O.C.  
 Constructed Well Depth (m/ft): 13.6  
 Measured Well Depth (m/ft): 13.6  
 Depth of Sediment (m/ft): 0  
 Saturated Screen Length (m/ft): 3.20 ft.  
 Depth to Pump Intake (m/ft)<sup>(1)</sup>: 13.0 ft.  
 Well Diameter, D (cm/in): 4.0 in.  
 Well Screen Volume, V<sub>s</sub> (L)<sup>(2)</sup>: 1.4 gallons  
 Initial Depth to Water (m/ft): 11.4 ft.

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (mS/cm) ±0.005 or 0.02 <sup>(4)</sup>	Turbidity NTU ±10 %	DO (mg/L) ±10 %	pH ±0.1 Units	ORP (mV) ±10 mV	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>(5)</sup>
1335	300	11.4	0	7.4	0.002	78	10	6.25	190	1.5	0.28
1340	300	11.4	0	9.4	0.002	52	9.6	6.21	192	3.0	0.56
1345	300	11.4	0	9.9	0.002	34	9.7	6.20	194	4.5	0.84

**Notes:**

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_{ps} = (\pi^2) r^2 L$  in mL, where r (r=D/2) and L are in cm. For imperial units,  $V_{ps} = (\pi^2) r^2 L \cdot (2.54)^3$ , where r and L are in inches.
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged= V<sub>p</sub>/V<sub>s</sub>.
- (5) For conductivity, the average value of three readings <1 mS/cm ±0.005 mS/cm or where conductivity >1 mS/cm ±0.01 mS/cm.

SAMPLE ID: WG-37191-072009-005  
 SAMPLE TIME: 1315

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Name: FORMER BUFFALO CHINA  
 Ref. No.: 37191

Date: 7/20/09  
 Personnel: DJT/SG

Monitoring Well Data:  
 Well No.: MW-11A  
 Measurement Point:  
 Constructed Well Depth (ft): \_\_\_\_\_  
 Measured Well Depth (ft): \_\_\_\_\_  
 Depth of Sediment (ft): \_\_\_\_\_

CoFC#  
 19127

Initial Depth to Water (ft): 11.61

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged (3)
1250	360	11.61	0.00	7.66	12.97	0.916	-9	2.94	23.9		
1255	360	11.61	0.00	7.40	12.65	0.847	-11	1.83	8.63		
1300	360	11.61	0.00	7.30	12.30	0.845	-10	1.54	9.54		
1305	360	11.61	0.00	7.23	12.27	0.846	-10	1.21	8.48		
1310	360	11.61	0.00	7.20	12.18	0.845	-9	1.14	6.26		

INST. CONTROL #5  
 MP-20 - RENTAL  
 TURBIDIMETER - RENTAL  
 W/L METER NFO 4421

- Notes:
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5)(2.5)$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

START IRRAE @ 12A1

Dave J. [Signature]



**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

**Project Data:**

Project Name: Buffalo China  
 Ref. No.: 37191

Date: 1/23/09  
 Personnel: J. Williams

**Monitoring Well Data:**

Well No.: MW-15A  
 Vapour PID (ppm): NM  
 Measurement Point: T.O.C.  
 Constructed Well Depth (m/ft): 14.2  
 Measured Well Depth (m/ft): 14.2  
 Depth of Sediment (m/ft): 0  
 Saturated Screen Length (m/ft): 3.8 ft.  
 Depth to Pump Intake (m/ft)<sup>(1)</sup>: 12.0 ft.  
 Well Diameter, D (cm/in): 4.0 in.  
 Well Screen Volume, V<sub>s</sub> (L)<sup>(2)</sup>: 2.5 gallons  
 Initial Depth to Water (m/ft): 10.36 ft.

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level (m/ft)	Temperature °C	Conductivity (mS/cm) ±0.005 or 0.01 m	Turbidity NTU ±10 %	DO (mg/L) ±10 %	pH ±0.1 Units	ORP (mV) ±10 mV	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>(3)</sup>
1013	300	10.42	0.06	11.5	3.16	89	0	7.12	109	1.5	0.15
1018	200	10.50	0.14	12.0	3.06	70	0	7.10	105	2.5	0.26
1023	200	10.51	0.15	12.1	3.01	83	0	7.10	103	3.5	0.36
1028	200	10.52	0.16	12.1	3.99	73	0	7.09	104	4.5	0.46

**Notes:**

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.8 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi r^2 L$  in mL, where r (r=D/2) and L are in cm. For Imperial units,  $V_s = \pi r^2 L \cdot (2.54)^3$ , where r and L are in inches.
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p / V_s$ .
- (5) For conductivity, the average value of three readings <math>1 \text{ mS/cm} \pm 0.005 \text{ mS/cm}</math> or where conductivity >1 mS/cm  $\pm 0.01 \text{ mS/cm}$ .

SAMPLE ID: W9-31111-072007 - CJK  
 SAMPLE TIME: 1550

MONITORING WELL RECORD FOR LOW-FLOW PURGING

**Project Data:**  
 Project Name: FORMER BUFFALO CHINA  
 Ref. No.: 37191

Date: 7/29/09  
 Personnel: DJT/SG

**Monitoring Well Data:**  
 Well No.: MW-15A  
 Measurement Point:  
 Constructed Well Depth (ft): \_\_\_\_\_  
 Measured Well Depth (ft): \_\_\_\_\_  
 Depth of Sediment (ft): \_\_\_\_\_  
 Screen Length (ft): \_\_\_\_\_  
 Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Well Diameter, D (in): \_\_\_\_\_  
 Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
 Initial Depth to Water (ft): 10.51

CoFC#  
19127

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> Screen Volumes Purged <sup>(4)</sup> (mL)		No. of Well Screen Volumes Purged <sup>(4)</sup>
1535	280	10.61	0.10	7.30	15.27	2.20	18	15.88	35.1			
1540	280	10.68	0.07	7.27	15.22	2.24	-14	7.71	27.4			
1545	280	10.75	0.24	7.23	15.29	2.23	-11	6.82	26.2			

INST. CONTROL #3  
 MP-20 RENTAL  
 TURBIDIMETER - RENTAL  
 W/L METER - NFO4421

- Notes:**
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_s = (D/2)^2 \cdot (5 \cdot 12) \cdot (2.54)^3$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged =  $V_p/V_s$ . **START PURGE @ 1530**

*David J. [Signature]*



Sample ID W-37191-052808-009  
Time 1545

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data: Project Name: Former Buffalo China  
Ref. No.: 37191

Date: 5-20-08  
Personnel: SGA, BJT

CofC #  
4784

Monitoring Well Data: Well No.: Hcw-17  
Measurement Point: \_\_\_\_\_  
Constructed Well Depth (ft): \_\_\_\_\_  
Measured Well Depth (ft): \_\_\_\_\_  
Depth of Sediment (ft): \_\_\_\_\_

Screen Length (ft): \_\_\_\_\_  
Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
Well Diameter, D (in): \_\_\_\_\_  
Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
Initial Depth to Water (ft): 7.61

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> Screen Volumes Purged <sup>(4)</sup>	
										(mL)	No. of Well
1447	105	7.92	0.31	6.77	13.4	1.88	230	5.40	2.3		
1452		8.06	0.45	6.70	13.2	1.83	231	3.53	1.3		
1457		8.20	0.59	6.70	13.2	1.83	230	3.40	1.6		
1502	105	8.32	0.71	6.70	13.0	1.84	229	3.22	1.8		

Inst. Control #'s  
Well Meter: NFO4417  
Horiba: 0-22 NFO488

Notes:  
(1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.  
(2) The well screen volume will be based on a 5-foot screen length,  $V_s = p(D/2)^2(5.12)(2.54)^3$   
(3) The drawdown from the initial water level should not exceed 0.3 ft.  
(4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

Start Purge @ 1439

*David J. Ryan*

**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

**Project Data:**

Project Name: Buffalo China  
 Ref. No.: 3719

Date: 1/20/09  
 Personnel: J. Williams

**Monitoring Well Data:**

Well No.: MW-17  
 Vapour PID (ppm): NM  
 Measurement Point: TOP C.  
 Constructed Well Depth (m/ft): 11.5  
 Measured Well Depth (m/ft): 11.3  
 Depth of Sediment (m/ft): 0  
 Saturated Screen Length (m/ft): 5.0 ft  
 Depth to Pump Intake (m/ft)<sup>(1)</sup>: 12.0 ft  
 Well Diameter, D (cm/in): 2.0 in.  
 Well Screen Volume, V<sub>s</sub> (L)<sup>(2)</sup>: 0.8 gallons  
 Initial Depth to Water (m/ft): 4.27 ft

Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature °C	Conductivity (µS/cm) ±0.005 or 0.01 <sup>(5)</sup>	Turbidity NTU ±10 %	DO (mg/L) ±10 %	pH ±0.1 Units	ORP (mV) ±10 mV	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1235	300	4.36	0.09	5.6	0.84	180	9.78	6.96	109	1.5	0.48
1240	200	4.52	0.25	6.5	0.90	478	9.27	6.95	127	2.5	0.80
1245	100	4.50	0.23	6.5	1.02	30	2.61	6.99	122	3.0	0.97
1250	100	4.48	0.21	6.5	1.05	25.7	0.60	6.98	123	3.5	1.13
1255	100	4.49	0.22	6.8	1.08	22.4	0.80	6.96	125	4.0	1.30
1300	100	4.48	0.21	7.1	1.10	22.3	0.80	6.95	107	4.5	1.45

**Notes:**

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi r^2 L$  in mL, where r (=D/2) and L are in cm. For imperial units,  $V_s = \pi r^2 L$  (2.54)<sup>3</sup>, where r and L are in inches.
- (3) The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged = V<sub>p</sub>/V<sub>s</sub>.
- (5) For conductivity, the average value of three readings < 1 mS/cm ±0.005 mS/cm or where conductivity > 1 mS/cm ±0.01 mS/cm.

Sample ID 409-37191-072004-013  
Time 1535

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data: Project Name: Buffalo China Date: 7-20-09  
 Ref. No.: 37191 Personnel: DJT/SSG  
 CofC # 19127

Monitoring Well Data: Well No.: M5-17 Screen Length (ft):  
 Measurement Point: Depth to Pump Intake (ft)<sup>(1)</sup>:  
 Constructed Well Depth (ft): Well Diameter, D (in):  
 Measured Well Depth (ft): Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>:  
 Depth of Sediment (ft): Initial Depth to Water (ft): 10.08

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub>	No. of Well Screens Purged <sup>(4)</sup>
										(mL)	
1523	80	10.23	0.15	7.81	17.11	196	170	1.71	8.35		
1528		10.37	0.26	7.91	16.22	186	186	1.08	7.25		
1533				7.90	15.93	196	196	0.81	0.98		

Inst. Control # 5  
 w/k Meter NFO5834  
 MP: 20 Rental  
 Turb meter Rental  
 [Signature]

- Notes:  
 (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.  
 (2) The well screen volume will be based on a 5-foot screen length,  $V_p = P^2(D/2)^2(5 \times 12)^2(2.54)^2$   
 (3) The drawdown from the initial water level should not exceed 0.3 ft.  
 (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .
- Start Purge @ 1519  
 [Signature]

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

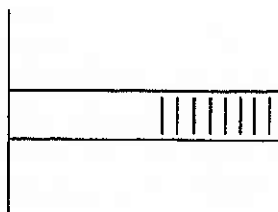
Project Name: Buffalo Chino  
 Ref. No.: 37191

Date: 1/13/09  
 Personnel: J. Williams

Monitoring Well Data:

Well No.: MN-18  
 Vapour PID (ppm): NM  
 Measurement Point: T.O.C.  
 Constructed Well Depth (m/ft): 10.2 ft  
 Measured Well Depth (m/ft): 10.2 ft  
 Depth of Sediment (m/ft): 0 ft

Saturated Screen Length (m/ft): 5.0 ft  
 Depth to Pump Intake (m/ft)<sup>(1)</sup>: 8.2 ft  
 Well Diameter, D (cm/in): 2.0 in.  
 Well Screen Volume, V<sub>s</sub> (L)<sup>(2)</sup>: 0.8 gallons  
 Initial Depth to Water (m/ft): 4.49 ft



Time	Pumping Rate (mL/min)	Depth to Water (m/ft)	Drawdown from Initial Water Level <sup>(3)</sup> (m/ft)	Temperature -C ±0.1	Conductivity (mS/cm) ±0.005 or 0.01 <sup>(4)</sup>	Turbidity NTU ±10%	DO (mg/L) ±0.1	pH ±0.1 Units	ORP (mV) ±10 mV	Volume Purged, V <sub>p</sub> (L)	No. of Well Screen Volumes Purged <sup>(5)</sup>
1235	100	5.32	0.83	8.7	0.281	2.71	3.04	6.73	NA	0.5	0.2
1240	75	5.53	1.04	8.7	0.305	65.1	2.27	6.75	NA	0.88	0.3
1245	75	5.68	1.19	8.7	0.326	50.4	1.71	6.75	NA	1.3	0.4
1250	75	5.79	1.30	8.6	0.358	48.2	1.47	6.75	NA	1.6	0.5
1255	75	5.82	1.33	8.4	0.391	50.9	1.24	6.77	NA	2.0	0.6
1300	75	5.97	1.48	8.3	0.452	47.8	1.27	6.78	NA	2.4	0.8
1305	75	5.99	1.50	8.5	0.516	37.3	1.09	6.79	NA	2.8	0.9
1310	75	6.01	1.52	8.5	0.579	35.7	0.94	6.80	NA	3.2	1.0

Notes:

- The pump intake will be placed at the well screen mid-point or at a minimum of 0.6 m (2 ft) above any sediment accumulated at the well bottom.
- The well screen volume will be based on a 1.52 metres (5-foot) screen length (L). For metric units,  $V_s = \pi r^2 L$  in mL, where r (=D/2) and L are in cm. For imperial units,  $V_s = \pi r^2 L (2.54)^3$ , where r and L are in inches.
- The drawdown from the initial water level should not exceed 0.1 m (0.3 ft). The pumping rate should not exceed 600 mL/min.
- Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .
- For conductivity, the average value of three readings < 1 mS/cm ± 0.005 mS/cm or where conductivity > 1 mS/cm ± 0.01 mS/cm.

SAMPLE ID: WG-37191-072209-0A2  
 SAMPLE TIME: 1310

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data: Project Name: FORMER BUFFALO CHINA Date: 7/22/09  
 Ref. No.: 37191 Personnel: DJT/SS

Monitoring Well Data: Well No.: MW-18 Screen Length (ft): \_\_\_\_\_  
 Measurement Point: \_\_\_\_\_ Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Constructed Well Depth (ft): \_\_\_\_\_ Well Diameter, D (in): \_\_\_\_\_  
 Measured Well Depth (ft): \_\_\_\_\_ Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
 Depth of Sediment (ft): \_\_\_\_\_ Initial Depth to Water (ft): 10.15

CoFC #

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1248	100	10.51	0.32	7.26	14.85	1.67	-52	1.76	8.85		
1253	100	10.67	0.52	7.22	14.70	1.60	-50	1.40	10.2		
1258		10.77	0.62	7.20	14.72	1.60	-50	1.42	5.30		

Notes:

- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
- (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi \cdot (D/2)^2 \cdot (5' \cdot 12 \cdot 2.54)$
- (3) The drawdown from the initial water level should not exceed 0.3 ft.
- (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid w/ turbidimeter - RENTAL and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged =  $V_p / V_s$ .

INST. CONTROL #S  
 MP20-RENTAL  
 TURBIDIMETER - RENTAL  
 W/L METER - NFOAA21

START PURGE @ 1242

*John J. ...*

SAMPLE ID: WG-37191-072209-041  
 SAMPLE TIME: 1225

*MS/MSD*

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data: Project Name: FORMER BUFFALO CHINA Date: 7/22/09  
 Ref. No.: 37191 Personnel: DJT/SS

Monitoring Well Data: Well No.: MW18A Screen Length (ft): \_\_\_\_\_  
 Measurement Point: \_\_\_\_\_ Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Constructed Well Depth (ft): \_\_\_\_\_ Well Diameter, D (in): \_\_\_\_\_  
 Measured Well Depth (ft): \_\_\_\_\_ Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
 Depth of Sediment (ft): \_\_\_\_\_ Initial Depth to Water (ft): 7.05

*COFC #*

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1208	200	7.93	0.28	7.07	12.74	2.19	-170	1.30	30.4		
1213	200	7.97	0.32	7.00	12.63	2.19	-180	1.06	37.3		
1218	200	8.00	0.35	7.05	12.51	2.19	-188	0.98	31.7		

Notes:  
 (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.  
 (2) The well screen volume will be based on a 5-foot screen length,  $V_s = P(D/2)^2(5/12)(2.54)$   
 (3) The drawdown from the initial water level should not exceed 0.3 ft.  
 (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

*INST. CONTROL #8*  
*MP 20 - RENTAL*  
*TURBIDIMETER - RENTAL*  
*W/L METER NF 04421*

*START PURGE @ 1200*

*Justin DeHaven*





SAMPLE ID: WG-37191-072009-001  
 SAMPLE TIME 1140

Co# C#  
 1912M

MONITORING WELL RECORD FOR LOW-FLOW PURGING

**Project Data:**  
 Project Name: FORMER BUFFALO CHINA Date: 7/20/09  
 Ref. No.: 37191 Personnel: DJT/SK

**Monitoring Well Data:**  
 Well No.: MW-19A Screen Length (ft): \_\_\_\_\_  
 Measurement Point: \_\_\_\_\_ Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Constructed Well Depth (ft): \_\_\_\_\_ Well Diameter, D (in): \_\_\_\_\_  
 Measured Well Depth (ft): \_\_\_\_\_ Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
 Depth of Sediment (ft): \_\_\_\_\_ Initial Depth to Water (ft): 10.00

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1110	440	10.00	0.00	6.99	14.19	1.72	30	2.32	80.7		
1115	440	10.00	0.00	7.12	13.73	1.73	-72	1.36	65.5		
1120	440	10.00	0.00	7.14	13.73	1.74	-80	1.17	45.5		
1125	440	10.00	0.00	7.14	13.63	1.74	-80	1.07	38.1		
1130	440	10.00	0.00	7.13	13.62	1.73	-78	1.04	40.00		

**Notes:**  
 (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.  
 (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5 \times 12)(2.54)$   
 (3) The drawdown from the initial water level should not exceed 0.3 ft.  
 (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ . **START FREE @ 1103**

INST CONTROL #5  
 MP.20 - RENTAL  
 TURBIDIMETER - RENTAL  
 W/L METER NFO4421

David J. Gao





Sample ID W9-37191-072209-031  
Time 0910

CofCA

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data: Project Name: Buffalo China Date: 7.22.09  
 Ref. No.: 37191 Personnel: SG/DST

Monitoring Well Data: Well No.: HW-20A Screen Length (ft): \_\_\_\_\_  
 Measurement Point: \_\_\_\_\_ Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Constructed Well Depth (ft): \_\_\_\_\_ Well Diameter, D (in): \_\_\_\_\_  
 Measured Well Depth (ft): \_\_\_\_\_ Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
 Depth of Sediment (ft): \_\_\_\_\_ Initial Depth to Water (ft): 3.60

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
0858		3.81	0.21	7.19	14.37	1.62	94	2.69	14.3		
0903				7.16	14.11	1.62	25	2.62	9.5		
0908	180	3.95	0.35	7.16	14.57	1.62	-12	0.55	8.56		

Inst. Control #'s  
 W/L Meter NF05034  
 Turbidimeter Rental  
 MP-80 Rental

- Notes:
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_s = F(D/2)^2(5.12)(2.54)^3$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

Start Purge @ 0854

*Handwritten signature*

SAMPLE ID: WG-37191-072109-016  
 SAMPLE TIME: 0940

DLP

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data:

Project Name: FORMER BUFFALO CHINA  
 Ref. No.: 37191

Date: 7/21/09  
 Personnel: DJT/RS

Monitoring Well Data:

Well No.: MW-21A  
 Measurement Point:  
 Constructed Well Depth (ft):  
 Measured Well Depth (ft):  
 Depth of Sediment (ft):

Screen Length (ft):  
 Depth to Pump Intake (ft)<sup>(1)</sup>:  
 Well Diameter, D (in):  
 Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>:  
 Initial Depth to Water (ft): 7.1A

CofC #  
 19104

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>	
											Stabilizing	Non-stabilizing
0921	260	7.17	0.03	6.99	15.30	1.85	-95	3.53	100			
0926	260	7.17	0.03	6.99	15.16	1.83	-98	2.79	62.9			
0931	260	7.17	0.03	6.99	15.20	1.83	-98	2.40	43.1			
0936	260	7.17	0.03	6.99	15.28	1.83	-100	1.93	31.2			

INST. CONTROL #3  
 MP-20 - REUTAL  
 TURBIDIMETER - REUTAL  
 W/L METER - NFO 4421

- Notes:
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5)(2.54)$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

START PURGE @ 0915  
 TIME 0945

\* BLIND DLP: WG-37191-072109-017

Signature: *Jacob D. [unclear]*

SAMPLE ID: WG-37191-072009-004  
 SAMPLE TIME: 1230

**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

Project Name: FORMER BUFFALO CHINA  
 Ref. No.: 37191  
 Date: 7/29/09  
 Personnel: DJT/SC

Monitoring Well Data:  
 Well No.: MW-22  
 Screen Length (ft): \_\_\_\_\_  
 Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Well Diameter, D (in): \_\_\_\_\_  
 Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
 Initial Depth to Water (ft): 4.28

CoFC #  
19127

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1211	90	5.25	0.97	6.98	15.73	1.82	96	2.55	20.8		
1216	90	5.28	1.15	6.97	15.30	1.82	-105	1.72	19.8		
1221	90	4.12	1.84	6.97	15.22	1.82	-105	1.78	10.0		

INST CONTROL #S  
 MP-20 - RENTAL  
 TURBIDIMETER - RENTAL  
 W/L-METER NFOAA21

- Notes:
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_{sp} = (D/2)^2 \cdot (5 \cdot 12) \cdot (2.54)^3$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

START PURGING @ 1204

April 2009

Sample ID 26-37191-072004-003  
Time 1230

**MONITORING WELL RECORD FOR LOW-FLOW PURGING**

Project Data: Project Name: Buffalo China Date: 7-20-09  
 Ref. No.: 37191 Personnel: SG/DJT

Col C #  
19127

Monitoring Well Data: Well No.: MW 22A Screen Length (ft): \_\_\_\_\_  
 Measurement Point: \_\_\_\_\_ Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Constructed Well Depth (ft): \_\_\_\_\_ Well Diameter, D (in): \_\_\_\_\_  
 Measured Well Depth (ft): \_\_\_\_\_ Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
 Depth of Sediment (ft): \_\_\_\_\_ Initial Depth to Water (ft): 8.45

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1211	280	8.49	0.04	7.55	13.29	1.61	-100	8.43	>1000		
1216		8.49	0.04	7.88	13.91	1.61	-119	0.57	57.5		
1221	260	8.49	0.04	7.87	13.04	1.61	-129	0.51	67.5		
1226				7.86	12.90	1.61	-133	0.45	37.1		

Inst. Control #'s  
 w/L Meter NFO503Y  
 MP20 Rental  
 Turb. Meter Rental  
 [Signature]

Notes:  
 (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.  
 (2) The well screen volume will be based on a 5-foot screen length,  $V_s = p \cdot (D/2)^2 \cdot (5 \cdot 12 \cdot \pi \cdot 2.54)^2$   
 (3) The drawdown from the initial water level should not exceed 0.3 ft.  
 (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

Start Purge 1208



SAMPLE ID: WG-37191-072009-007  
 SAMPLE TIME 1410

DLP

COFC #  
 19127

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Name: FORMER BUFFALO CHINA  
 Ref. No.: 37191  
 Date: 7/20/09  
 Personnel: DJI/JS

Monitoring Well Data:  
 Well No.: MW-23A  
 Screen Length (ft): \_\_\_\_\_  
 Measurement Point: \_\_\_\_\_  
 Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
 Well Diameter, D (in): \_\_\_\_\_  
 Measured Well Depth (ft): \_\_\_\_\_  
 Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
 Depth of Sediment (ft): \_\_\_\_\_  
 Initial Depth to Water (ft): 15.08

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> Screen Volumes Purged <sup>(4)</sup> (mL)	
										No. of Well	Purged <sup>(4)</sup>
1354	200	15.51	0.43	7.28	13.82	1.72	-240	2.19	32.0		
1359	200	15.61	0.53	7.32	13.56	1.71	-255	2.12	28.3		
1404	200	15.60	0.58	7.33	13.55	1.70	-271	3.90	22.7		

Notes:  
 (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.  
 (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5'12)(2.54)$   
 (3) The drawdown from the initial water level should not exceed 0.3 ft.  
 (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing), No. of Well Screen Volumes Purged =  $V_p/V_s$ . START PURGEC @ 1345

INST. CONTROL #S  
 MP-20 - RENTAL  
 TURBIDIMETER - RENTAL  
 W/L METER - NFOAAZ1

\* BLIND DLP; WG-37191-072009-008 TIME: 1415  
 Dave J. [Signature]

SAMPLE ID: WG-37191-072004-010  
 SAMPLE TIME 1500

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data: Project Name: FORMER BUFFALO CHINA  
 Ref. No.: 37191

Date: 7/29/09  
 Personnel: DJT/SG

Monitoring Well Data: Well No.: MW-24A  
 Measurement Point:  
 Constructed Well Depth (ft):  
 Measured Well Depth (ft):  
 Depth of Sediment (ft):

Screen Length (ft):  
 Depth to Pump Intake (ft):  
 Well Diameter, D (in):  
 Well Screen Volume, V<sub>s</sub> (mL):  
 Initial Depth to Water (ft): 7.72

Coil #  
 19127

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(1)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume Purged, V <sub>p</sub> Screen Volumes Purged <sup>(2)</sup>	
										(mL)	No. of Well
1440	240	7.87	0.15	6.88	15.54	2.61	-165	2.70	19.3		
1445	240	7.90	0.18	6.85	15.42	2.59	-165	2.31	25.9		
1450	240	7.90	0.18	6.84	15.38	2.57	-170	2.24	28.1		

INST. CONTROL #5

MP.20 - RENTAL  
 TURBIDIMETER - RENTAL  
 W/ TURBIDIMETER NFOA421

- Notes:
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_p = p^2(D/2)^2(S/12)(2.54)^3$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be stabilizing), No. of Well Screen Volumes Purged =  $V_p/V_s$ .

START PURGE @ 1435

*Dave J. [unclear]*

MS/MSD Sample ID W9. 37191-072009-004  
Time 1420

CofC# 19127

MONITORING WELL RECORD FOR LOW-FLOW PURGING

Project Data: Project Name: Buffalo China Date: 7-20-09  
Ref. No.: 37191 Personnel: SG/DJI

Monitoring Well Data: Well No.: MW-25A Screen Length (ft): \_\_\_\_\_  
Measurement Point: \_\_\_\_\_ Depth to Pump Intake (ft)<sup>(1)</sup>: \_\_\_\_\_  
Constructed Well Depth (ft): \_\_\_\_\_ Well Diameter, D (in): \_\_\_\_\_  
Measured Well Depth (ft): \_\_\_\_\_ Well Screen Volume, V<sub>s</sub> (mL)<sup>(2)</sup>: \_\_\_\_\_  
Depth of Sediment (ft): \_\_\_\_\_ Initial Depth to Water (ft): 7.94

Time	Pumping Rate (mL/min)	Depth to Water (ft)	Drawdown from Initial Water Level <sup>(3)</sup> (ft)	pH	Temperature °C	Conductivity (mS/cm)	ORP (mV)	DO (mg/L)	Turbidity (NTU)	Volume	
										Purged, V <sub>p</sub> (mL)	No. of Well Screen Volumes Purged <sup>(4)</sup>
1409	200	7.94	0.00	8.78	21.37	6.848	-137	1.02	28.8		
1414		7.94	0.00	7.89	18.27	1.006	-82	0.54	33		
1419	200	7.94	0.00	7.89	17.73	1.036	-63	0.40	26.5		

Inst. Control # 5  
W/L Meter NFO5034  
MP-20 Rental  
Turb. Meter Rental

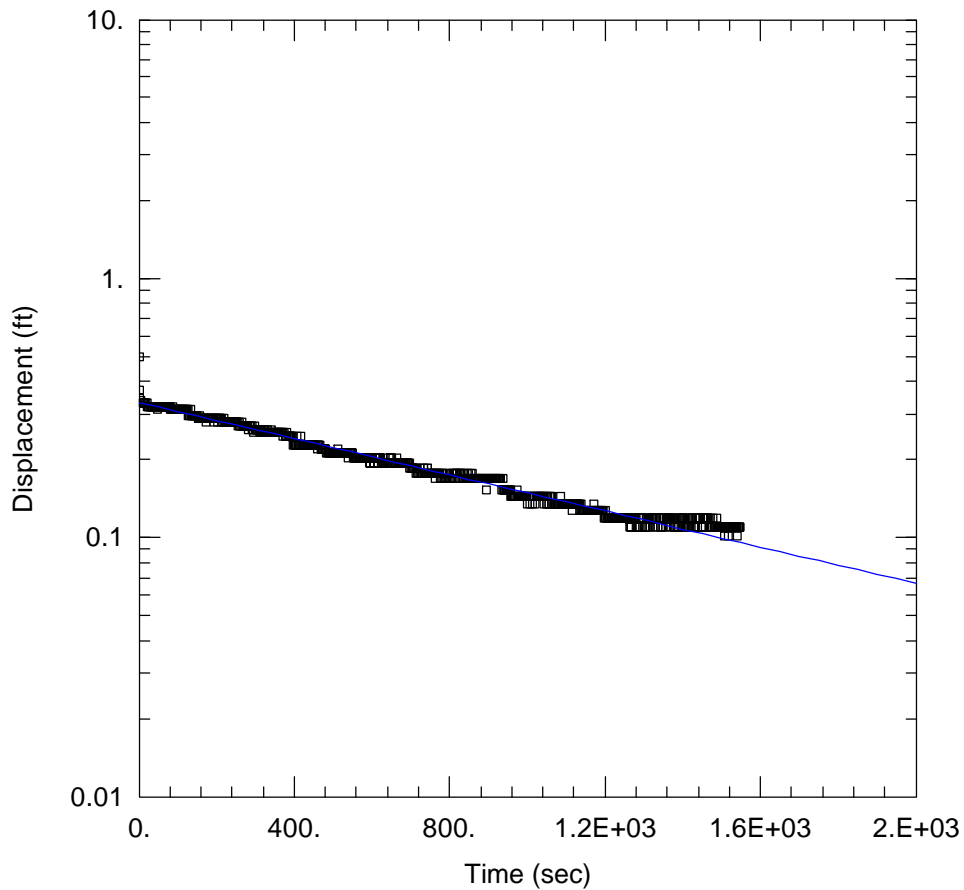
- Notes:
- (1) The pump intake will be placed at the well screen mid-point or at a minimum of 2 ft above any sediment accumulated at the well bottom.
  - (2) The well screen volume will be based on a 5-foot screen length,  $V_s = \pi(D/2)^2(5 \times 12)(2.5)$
  - (3) The drawdown from the initial water level should not exceed 0.3 ft.
  - (4) Purging will continue until stabilization is achieved or until 20 well screen volumes have been purged (unless purge water remains visually turbid and appears to be clearing, or unless stabilization parameters are varying slightly outside of the stabilization criteria and appear to be stabilizing). No. of Well Screen Volumes Purged =  $V_p/V_s$ .

Start Purge @ 1406

Paul J. [Signature]



APPENDIX E  
HYDRAULIC CONDUCTIVITY  
TESTING RESULTS



MW-4 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-4\_1.aqt

Date: 10/06/09

Time: 10:24:45

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-4

Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-4)

Initial Displacement: 0.5 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 4.96 ft

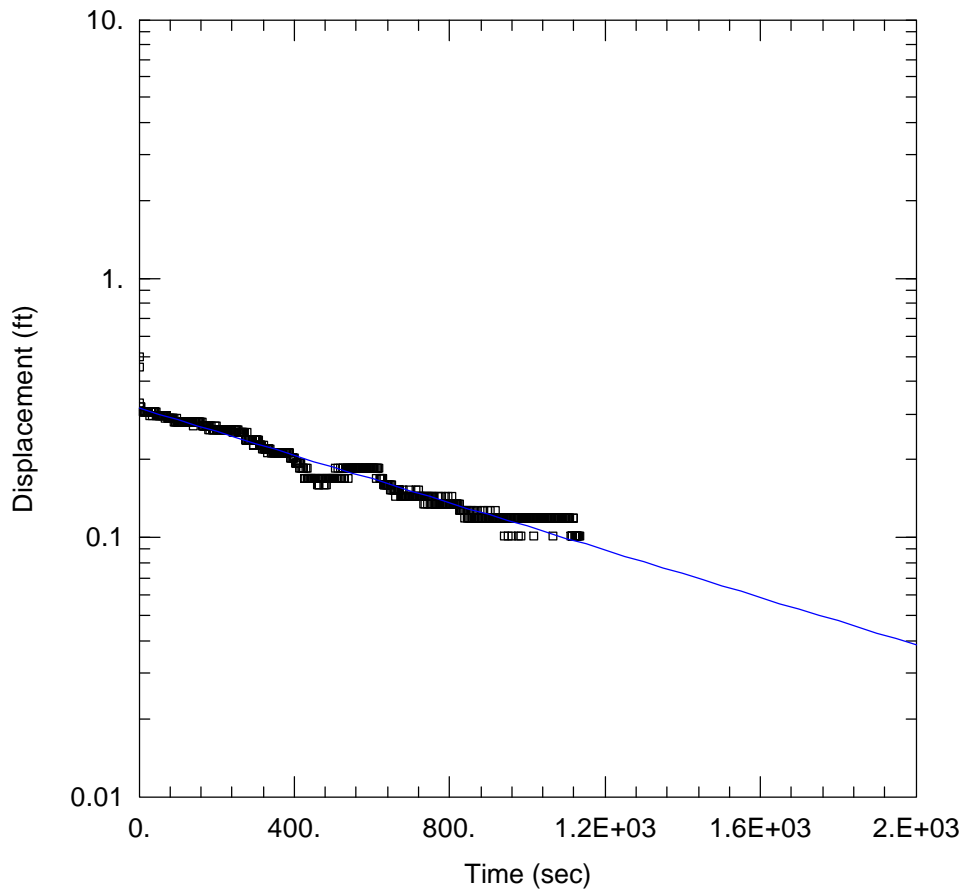
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 2.813E-05 cm/sec

y0 = 0.3325 ft



MW-4 RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-4\_2.aqt

Date: 10/06/09

Time: 10:25:24

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-4

Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-4)

Initial Displacement: 0.5 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 4.96 ft

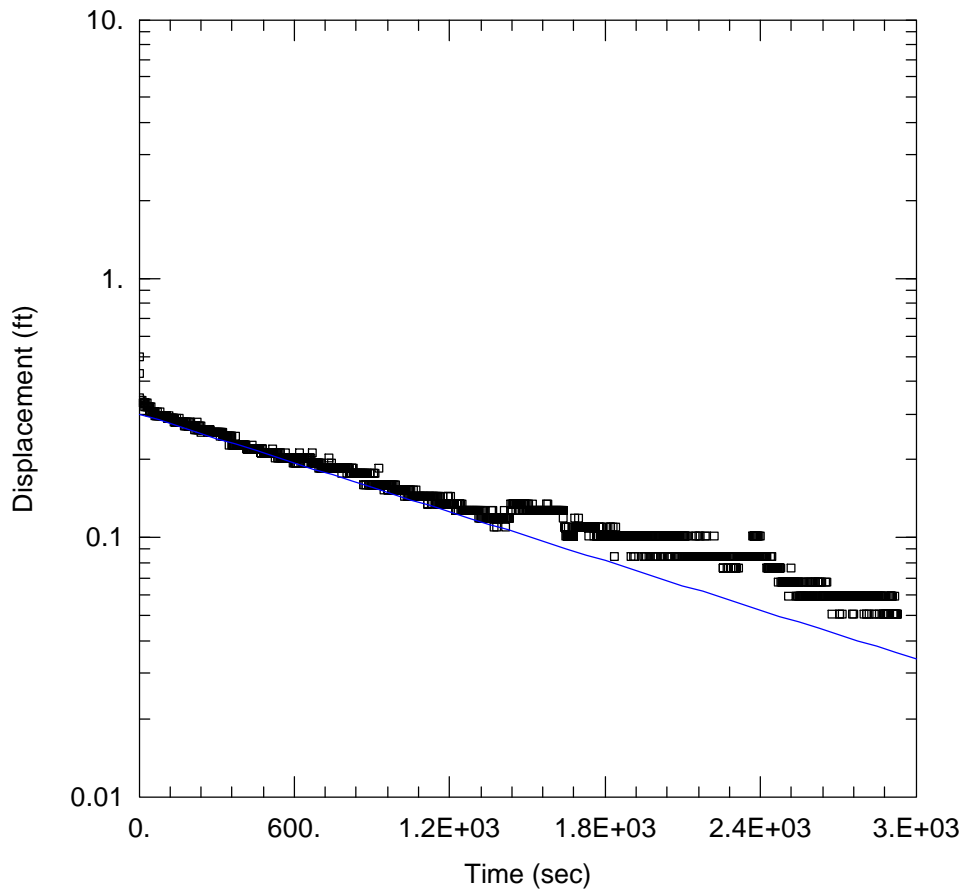
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 3.678E-05 cm/sec

y0 = 0.3162 ft



MW-4 FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-4\_3.aqt

Date: 10/06/09

Time: 10:25:10

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-4

Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-4)

Initial Displacement: 0.5 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 4.96 ft

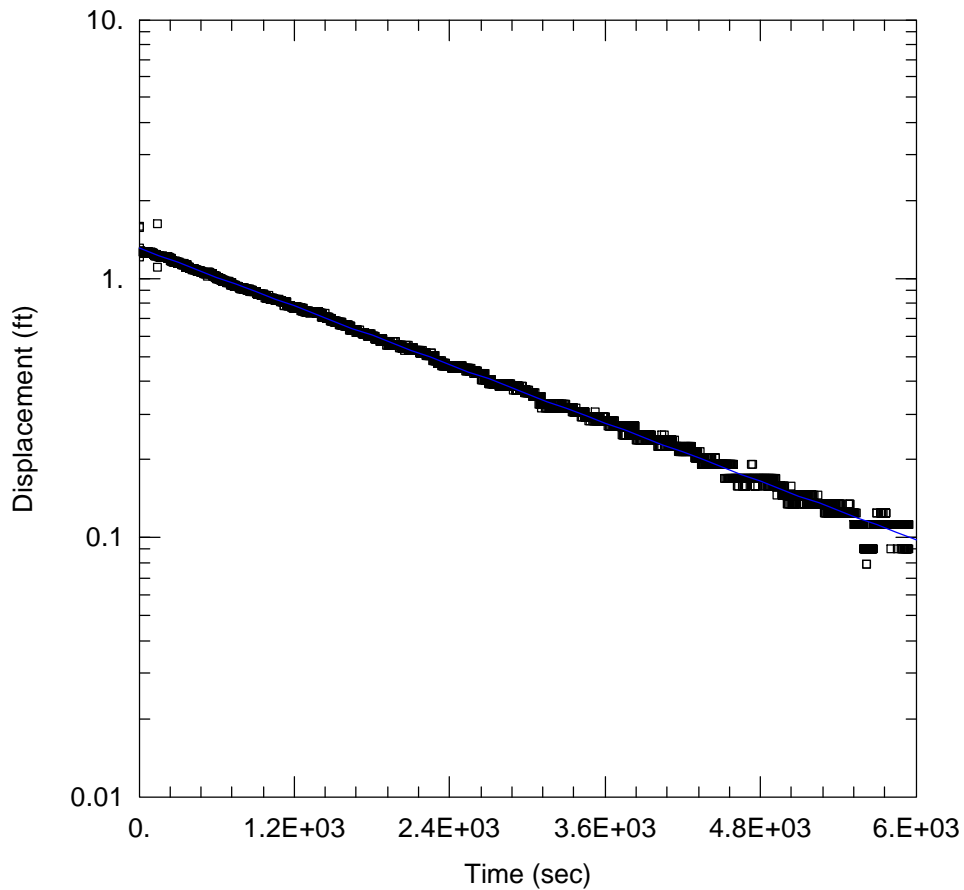
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 2.54E-05 cm/sec

y0 = 0.3004 ft



MW-5 FALLING HEAD TEST #1

Data Set: C:\Buffalo China\MW5\_1.aqt

Date: 10/06/09

Time: 12:25:26

PROJECT INFORMATION

Company: CRA

Client: Hodgson-Russ

Project: 37191

Test Location: Former Buffalo China Site

Test Well: MW-5

Test Date: February 13, 2009

AQUIFER DATA

Saturated Thickness: 8.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-5)

Initial Displacement: 1.6 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 8.1 ft

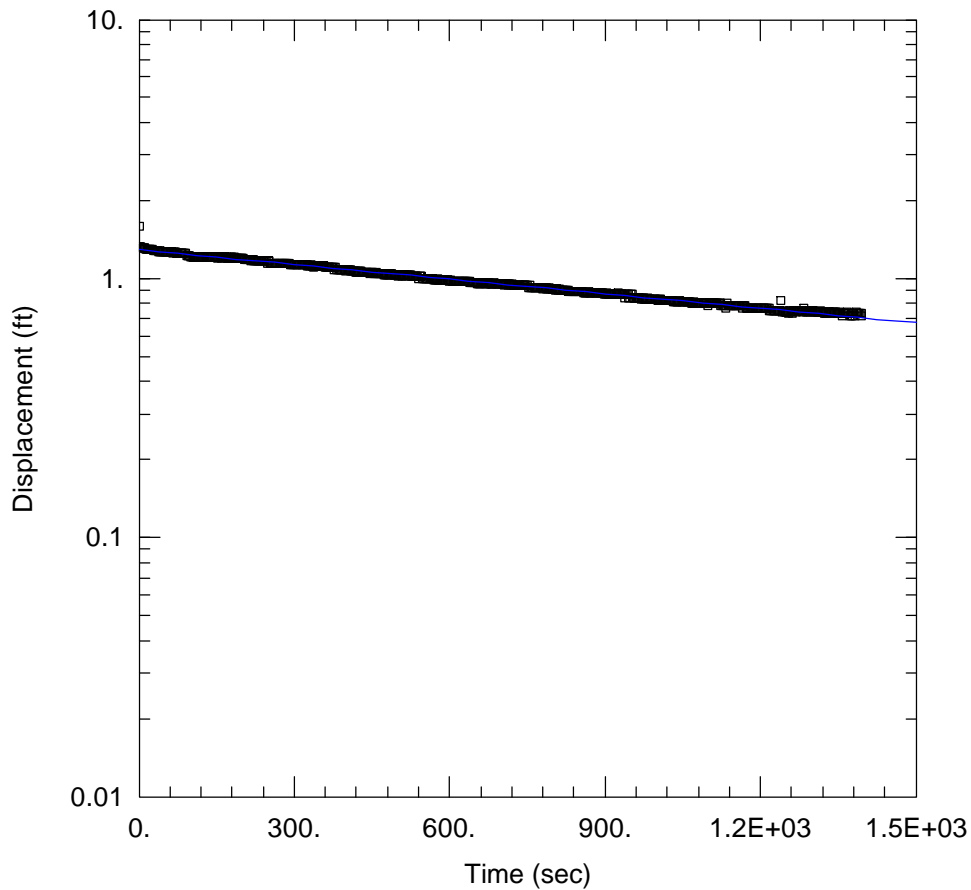
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 2.05E-05 cm/sec

y0 = 1.313 ft



### MW-5 RISING HEAD TEST #1

Data Set: C:\Buffalo China\MW5\_2.aqt

Date: 10/06/09

Time: 12:27:43

### PROJECT INFORMATION

Company: CRA

Client: Hodgson-Russ

Project: 37191

Test Location: Former Buffalo China Site

Test Well: MW-5

Test Date: February 13, 2009

### AQUIFER DATA

Saturated Thickness: 8.1 ft

Anisotropy Ratio (Kz/Kr): 1.

### WELL DATA (MW-5)

Initial Displacement: 1.6 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 8.1 ft

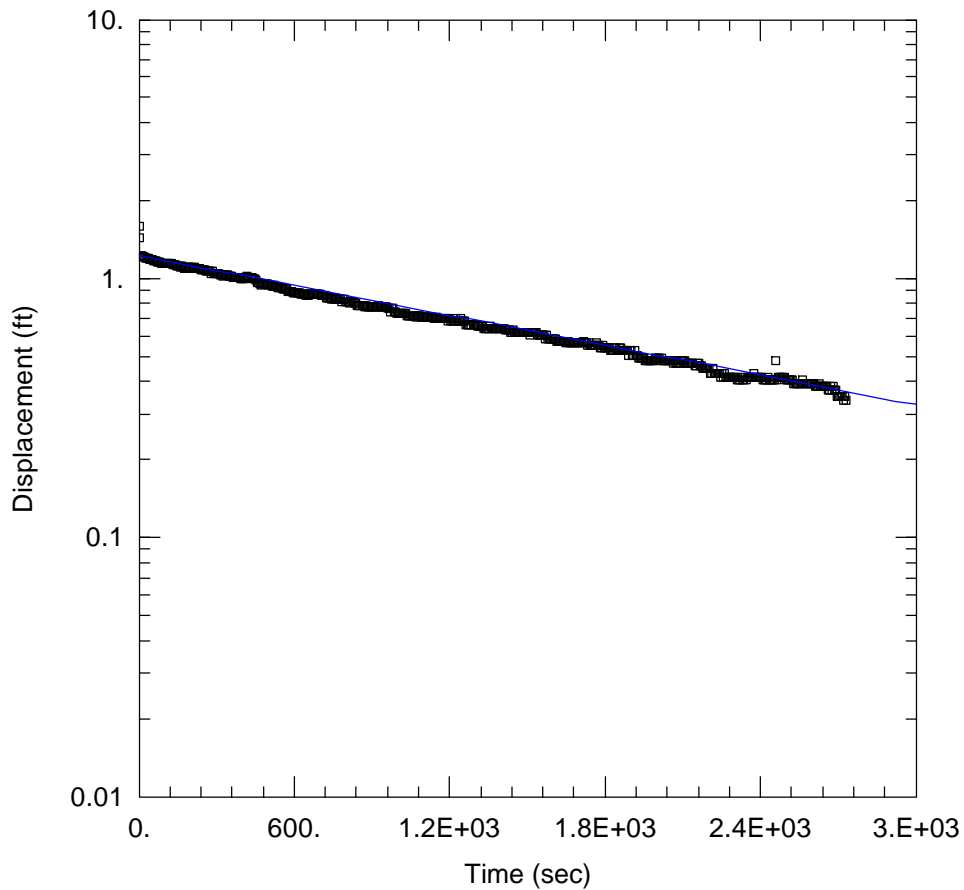
### SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 2.048E-05 cm/sec

y0 = 1.29 ft



MW-5 FALLING HEAD TEST #2

Data Set: C:\Buffalo China\MW5\_3.aqt

Date: 10/06/09

Time: 12:29:55

PROJECT INFORMATION

Company: CRA

Client: Hodgson-Russ

Project: 37191

Test Location: Former Buffalo China Site

Test Well: MW-5

Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 8.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-5)

Initial Displacement: 1.6 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 8.1 ft

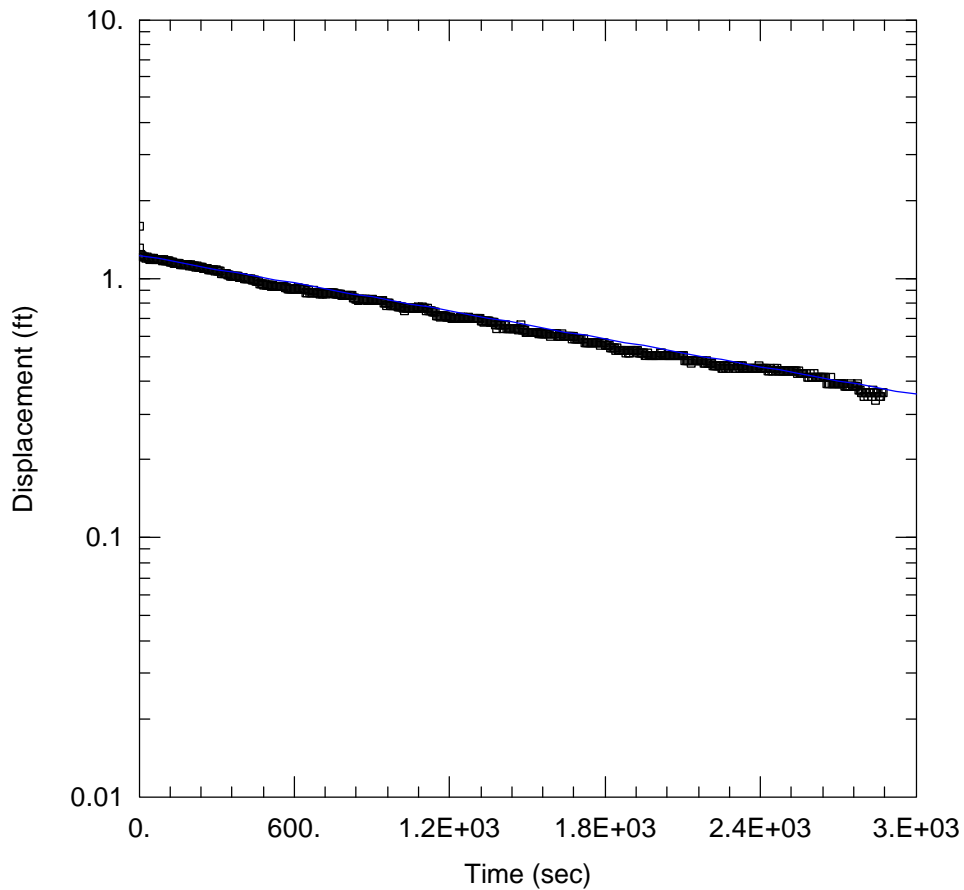
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 2.096E-05 cm/sec

y0 = 1.227 ft



MW-5 RISING HEAD TEST #2

Data Set: C:\Buffalo China\MW5\_4.aqt

Date: 10/06/09

Time: 12:31:02

PROJECT INFORMATION

Company: CRA

Client: Hodgson-Russ

Project: 37191

Test Location: Former Buffalo China Site

Test Well: MW-5

Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 8.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-5)

Initial Displacement: 1.6 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 8.1 ft

SOLUTION

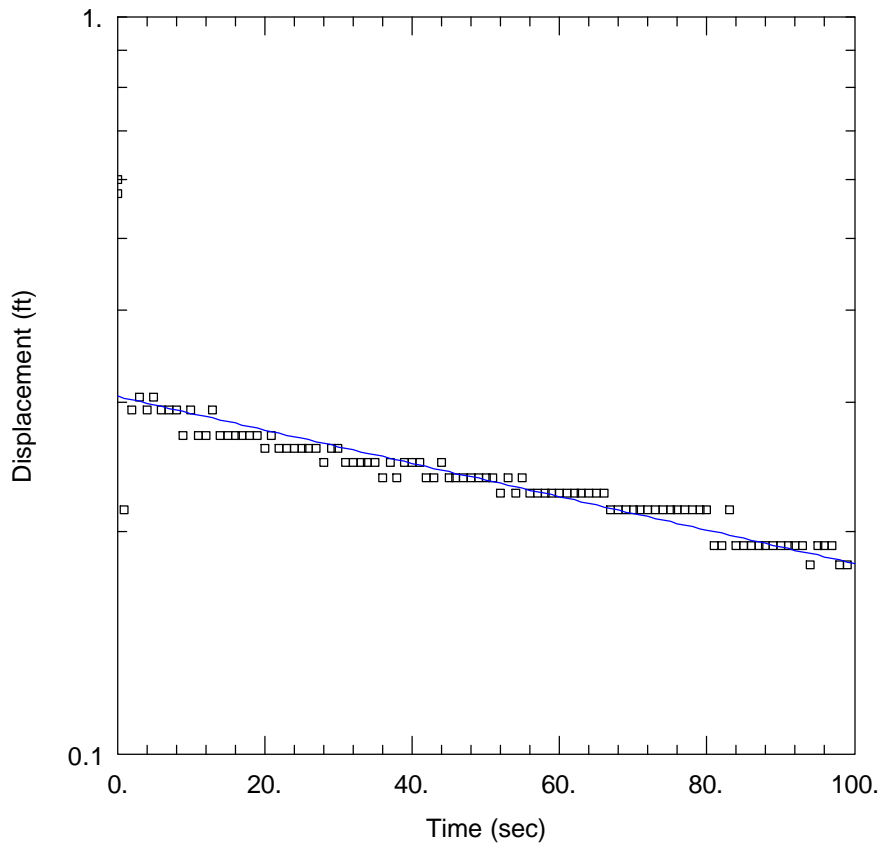
Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 1.956E-05 cm/sec

y0 = 1.23 ft





MW-6A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW6A\_A.aqt

Date: 07/09/09

Time: 09:28:18

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-6A

Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 17.4 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-6A)

Initial Displacement: 0.6 ft

Static Water Column Height: 17.4 ft

Total Well Penetration Depth: 17.4 ft

Screen Length: 9.3 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

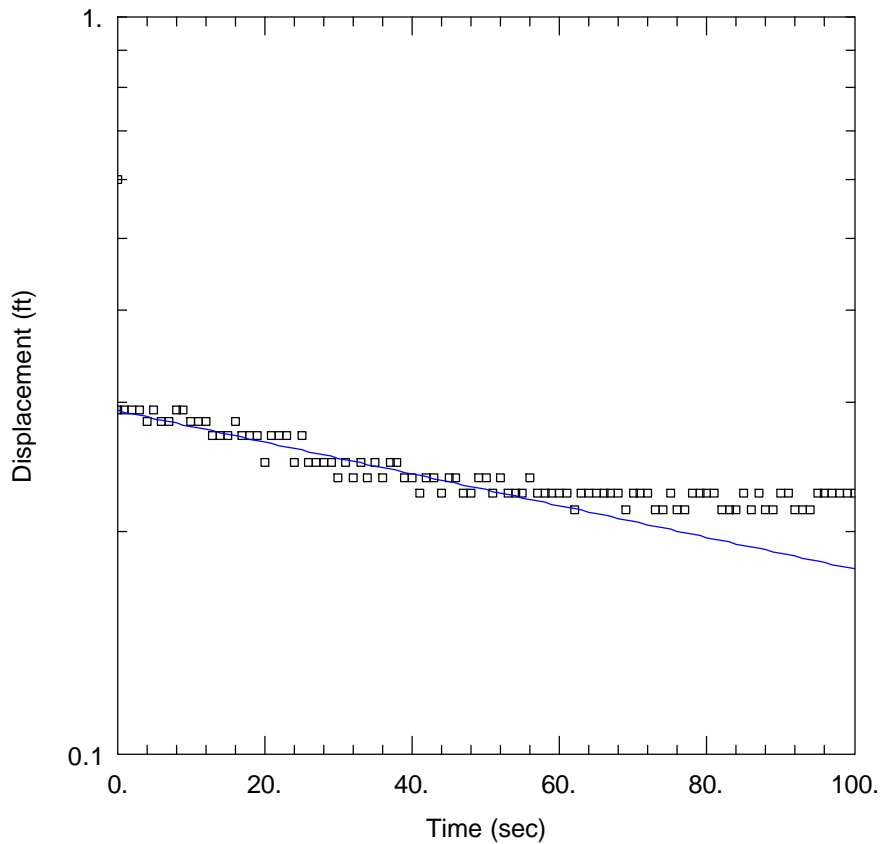
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0008286 cm/sec

y0 = 0.3051 ft



MW-6A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW6A\_B.aqt

Date: 07/09/09

Time: 09:30:28

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-6A

Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 17.4 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-6A)

Initial Displacement: 0.6 ft

Static Water Column Height: 17.4 ft

Total Well Penetration Depth: 17.4 ft

Screen Length: 9.3 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

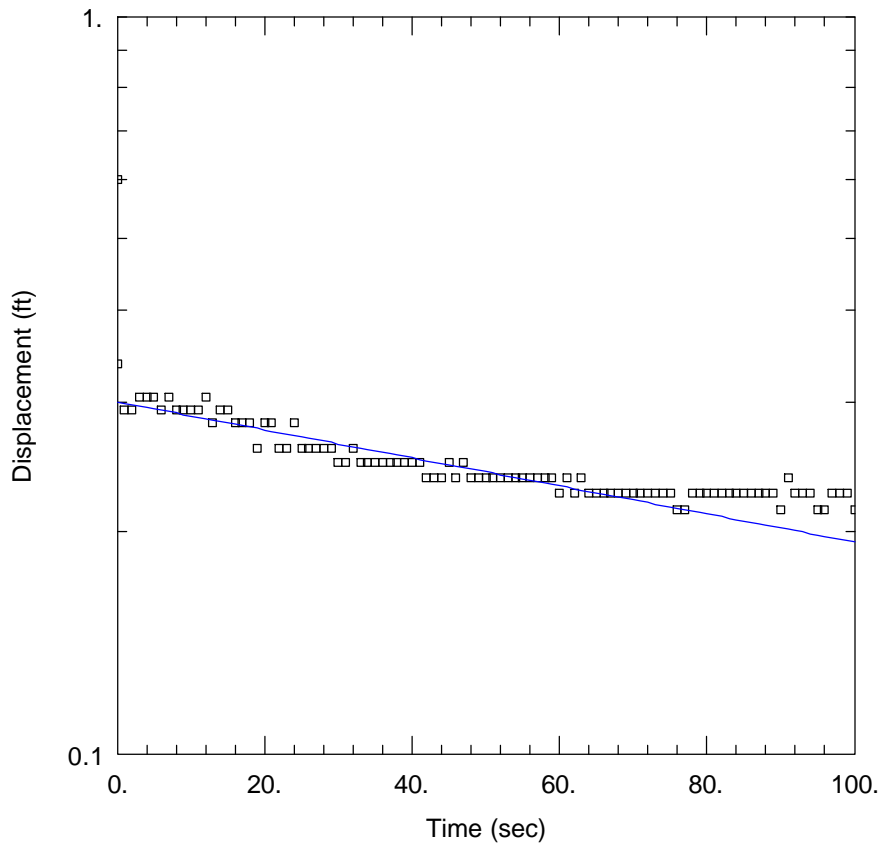
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0007872 cm/sec

y0 = 0.2921 ft



MW-6A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW6A\_C.aqt

Date: 07/09/09

Time: 09:32:10

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-6A

Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 17.4 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-6A)

Initial Displacement: 0.6 ft

Static Water Column Height: 17.4 ft

Total Well Penetration Depth: 17.4 ft

Screen Length: 9.3 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

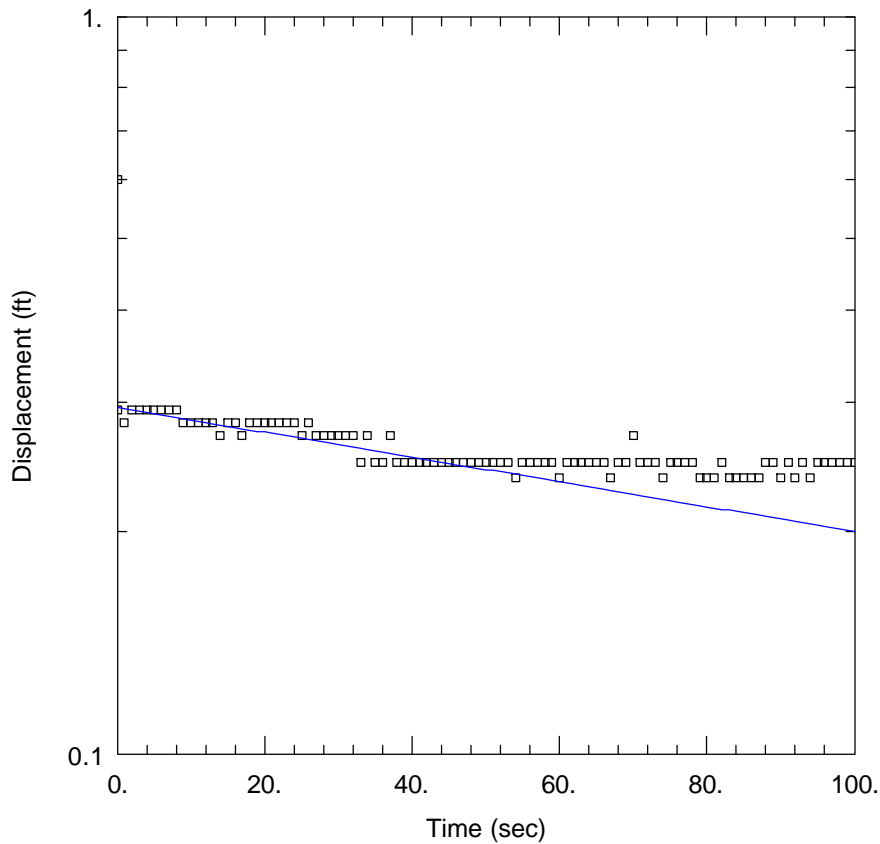
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0006947 cm/sec

y0 = 0.3 ft



MW-6A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW6A\_D.aqt

Date: 07/09/09

Time: 09:34:32

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-6A

Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 17.4 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-6A)

Initial Displacement: 0.6 ft

Static Water Column Height: 17.4 ft

Total Well Penetration Depth: 17.4 ft

Screen Length: 9.3 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

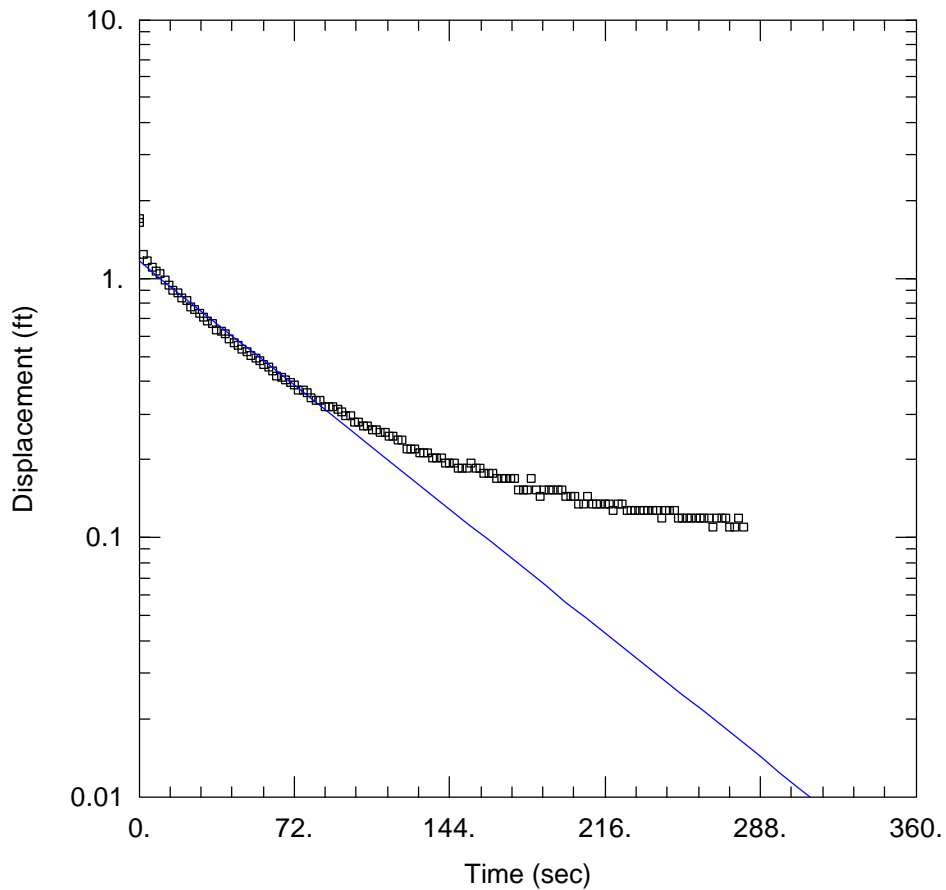
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0006151 cm/sec

y0 = 0.2947 ft



MW-7 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-7\_1.aqt

Date: 10/06/09

Time: 10:27:37

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-7

Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-7)

Initial Displacement: 1.7 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 5.49 ft

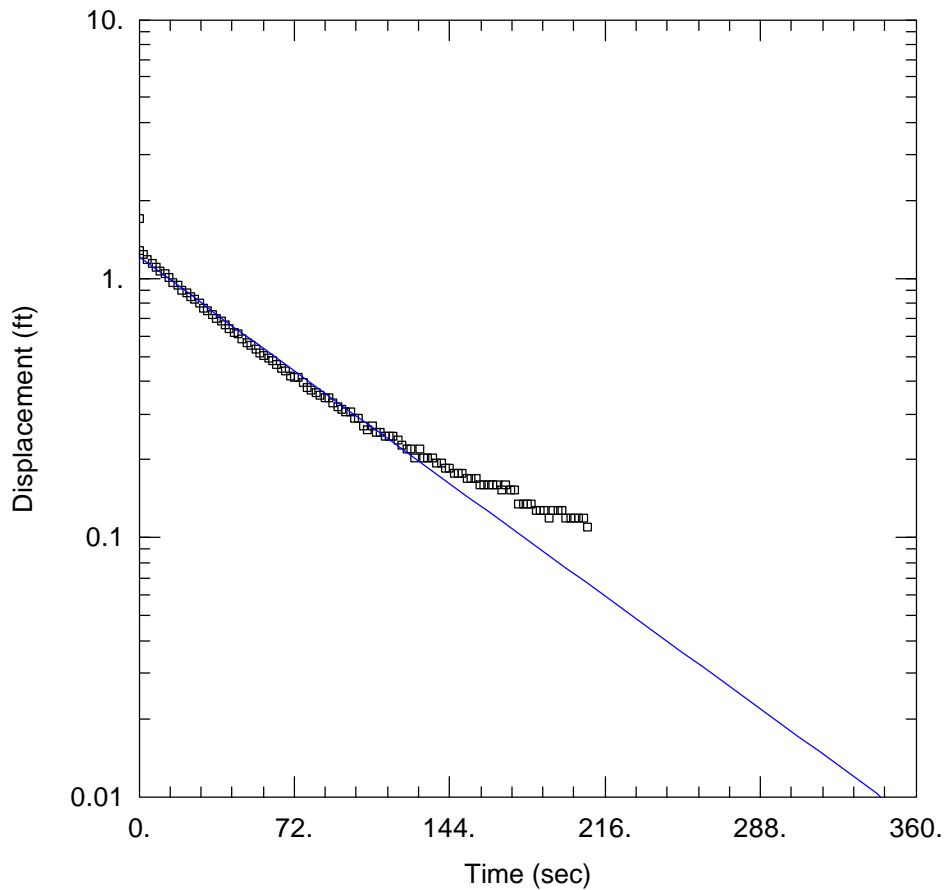
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0005496 cm/sec

y0 = 1.165 ft



MW-7 RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-7\_2.aqt

Date: 10/06/09

Time: 10:27:50

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-7

Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-7)

Initial Displacement: 1.7 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 5.49 ft

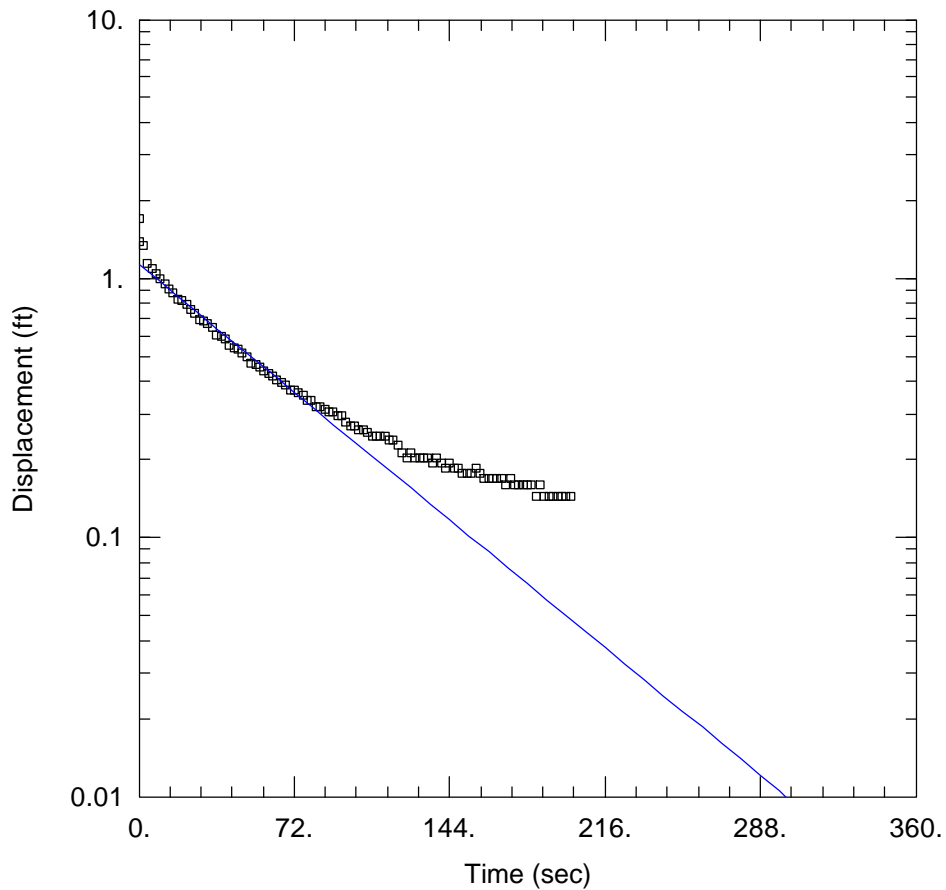
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0005009 cm/sec

y0 = 1.205 ft



MW-7 FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-7\_3.aqt

Date: 10/06/09

Time: 10:28:02

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-7

Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-7)

Initial Displacement: 1.7 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 5.49 ft

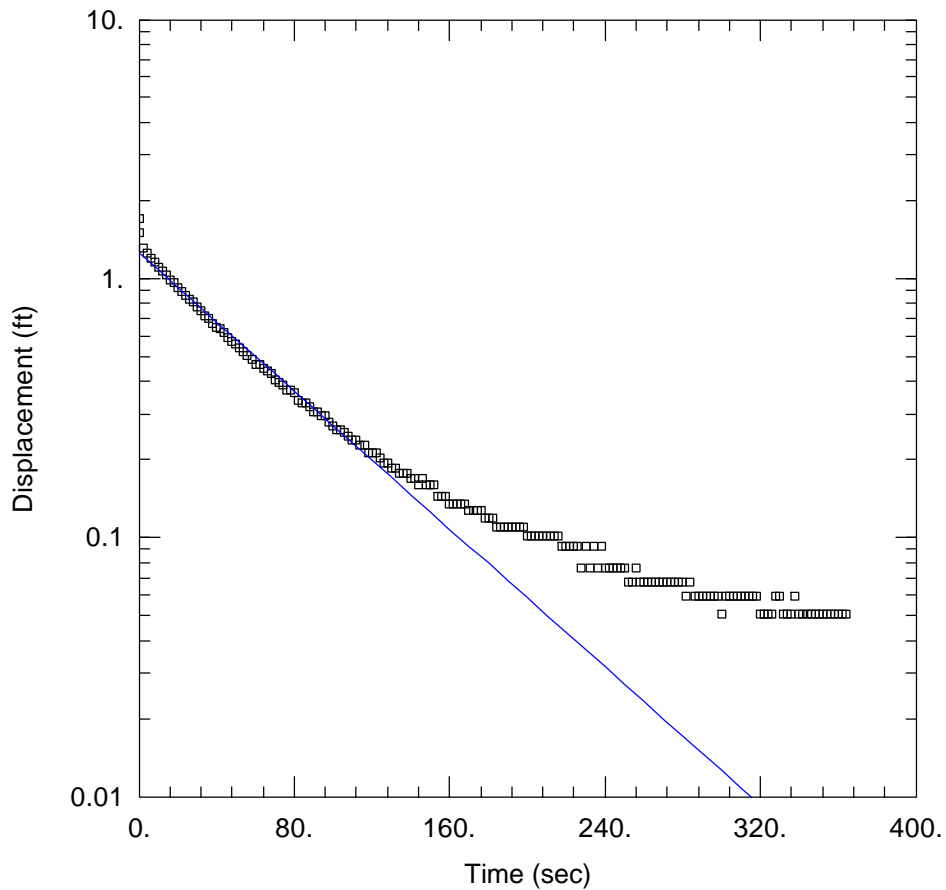
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0005665 cm/sec

y0 = 1.132 ft



MW-7 RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-7\_4.aqt

Date: 10/06/09

Time: 10:28:19

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-7

Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-7)

Initial Displacement: 1.7 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 5.49 ft

SOLUTION

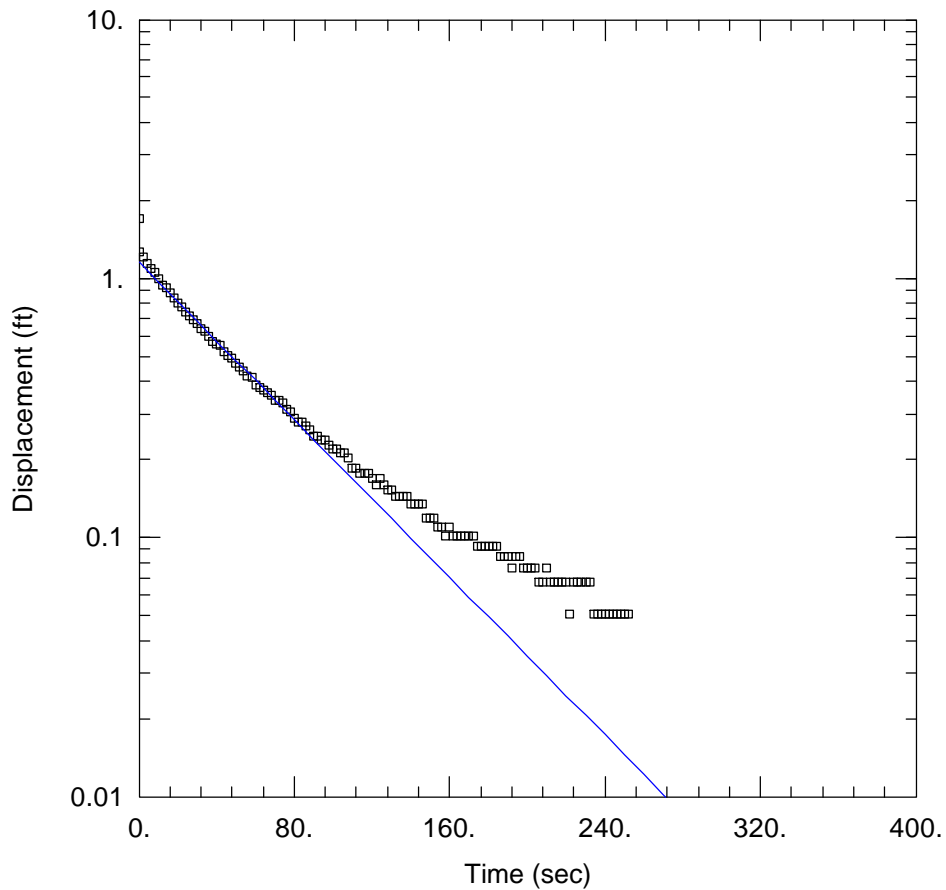
Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0005512 cm/sec

y0 = 1.255 ft





MW-7 FALLING HEAD SLUG TEST #3

Data Set: C:\Buffalo China\MW-7\_5.aqt

Date: 10/06/09

Time: 10:28:35

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-7

Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-7)

Initial Displacement: 1.7 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 5.49 ft

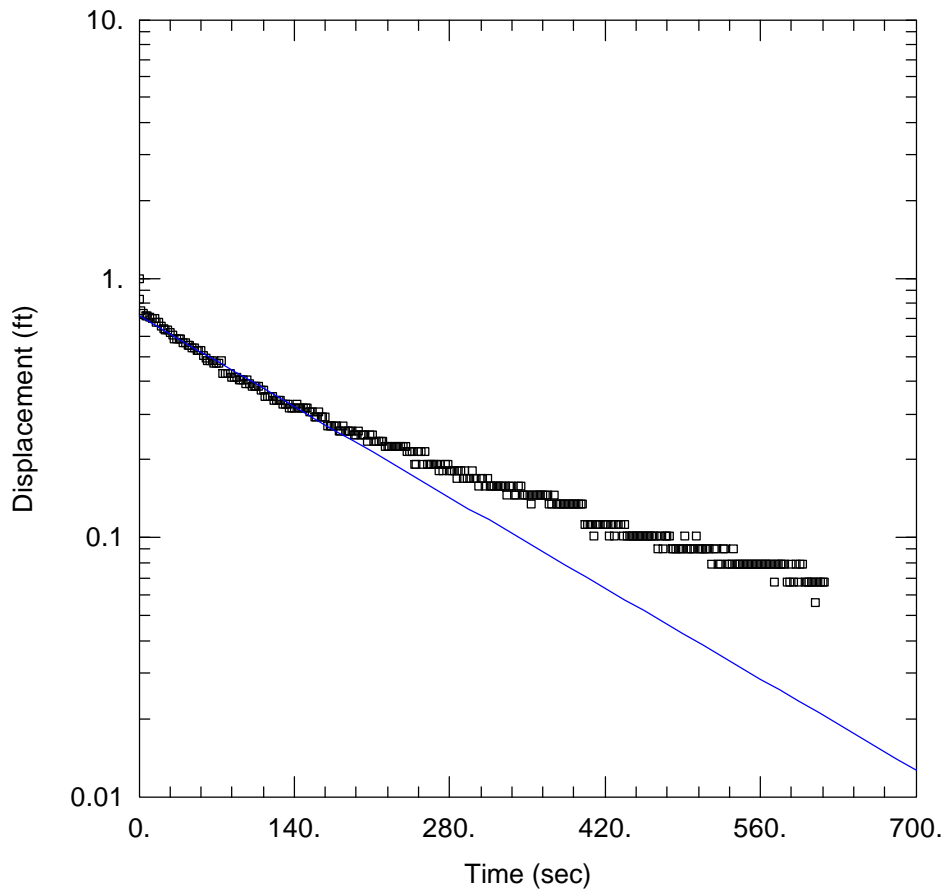
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0006292 cm/sec

y0 = 1.155 ft



MW-7A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-7A\_1.aqt

Date: 10/06/09

Time: 10:30:15

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-7A

Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-7A)

Initial Displacement: 1. ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 11.8 ft

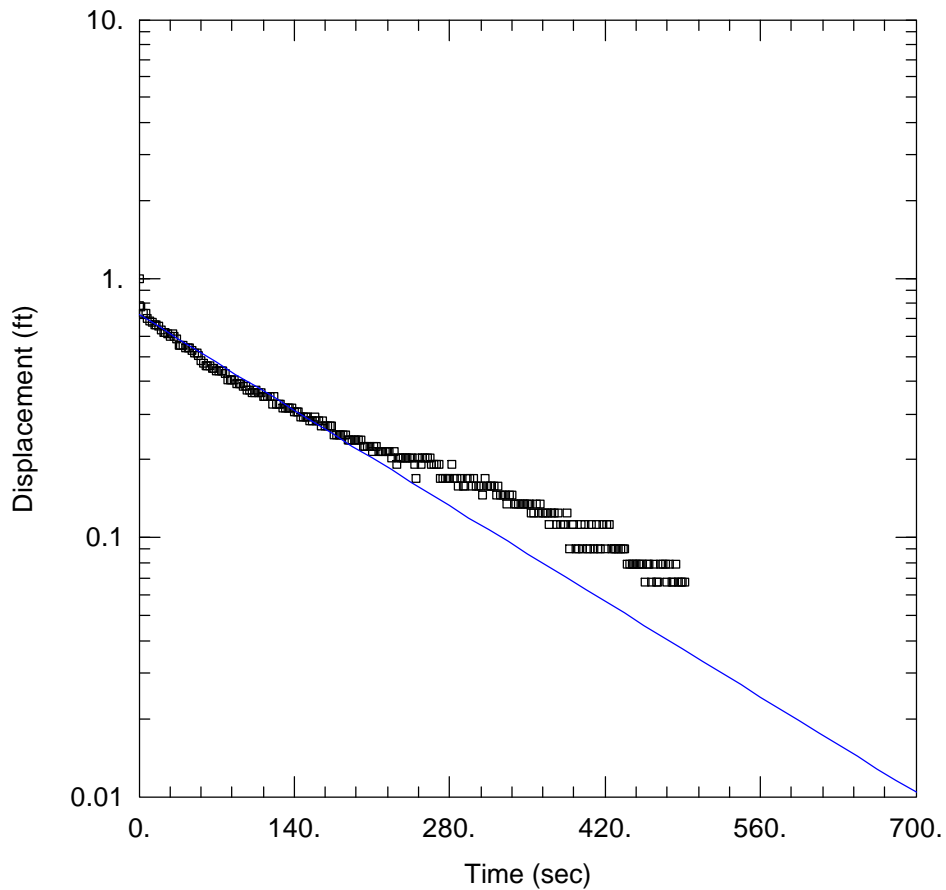
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.001293 cm/sec

y0 = 0.7182 ft



MW-7A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-7A\_2.aqt

Date: 10/06/09

Time: 10:30:02

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-7A

Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-7A)

Initial Displacement: 1. ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 11.8 ft

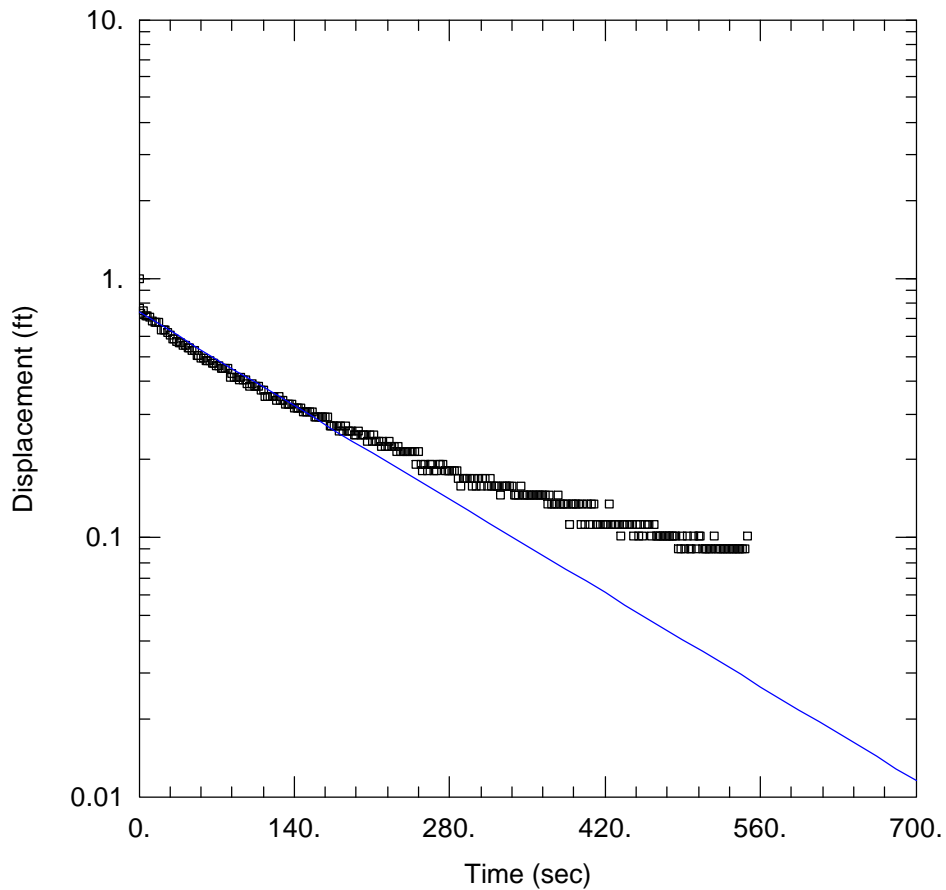
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.001362 cm/sec

y0 = 0.727 ft



MW-7A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-7A\_3.aqt

Date: 10/06/09

Time: 10:29:45

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-7A

Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-7A)

Initial Displacement: 1. ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 11.8 ft

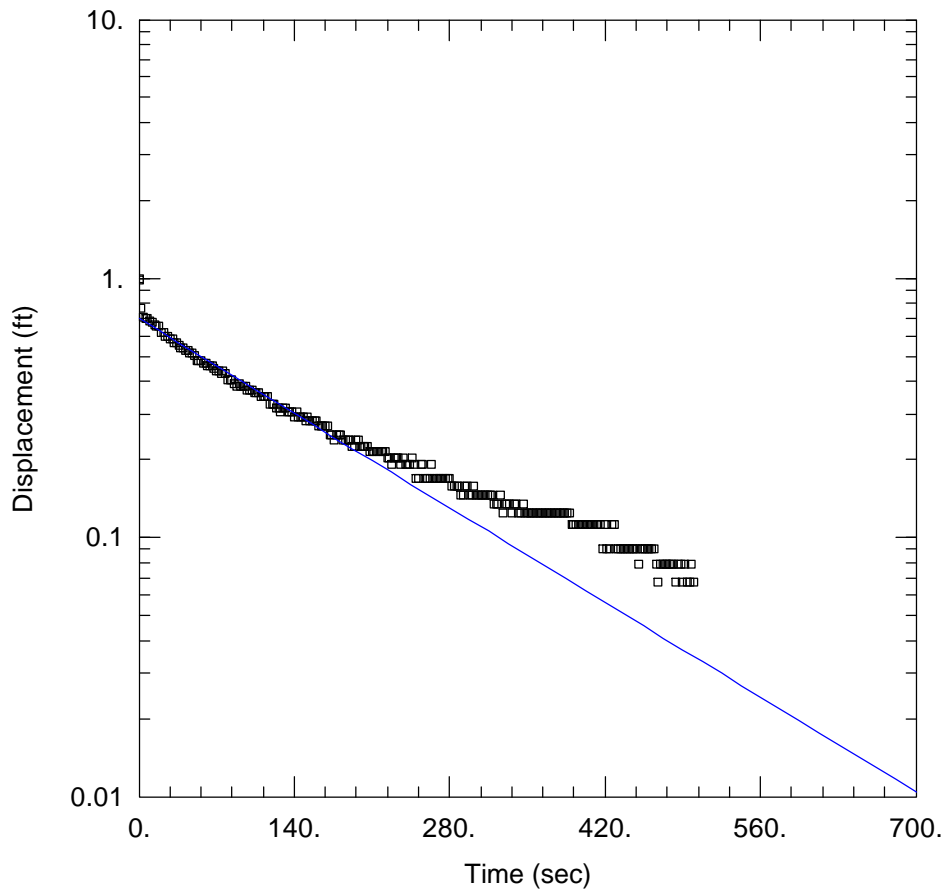
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.001333 cm/sec

y0 = 0.7414 ft



MW-7A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-7A\_4.aqt

Date: 10/06/09

Time: 10:29:30

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-7A

Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-7A)

Initial Displacement: 1. ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 11.8 ft

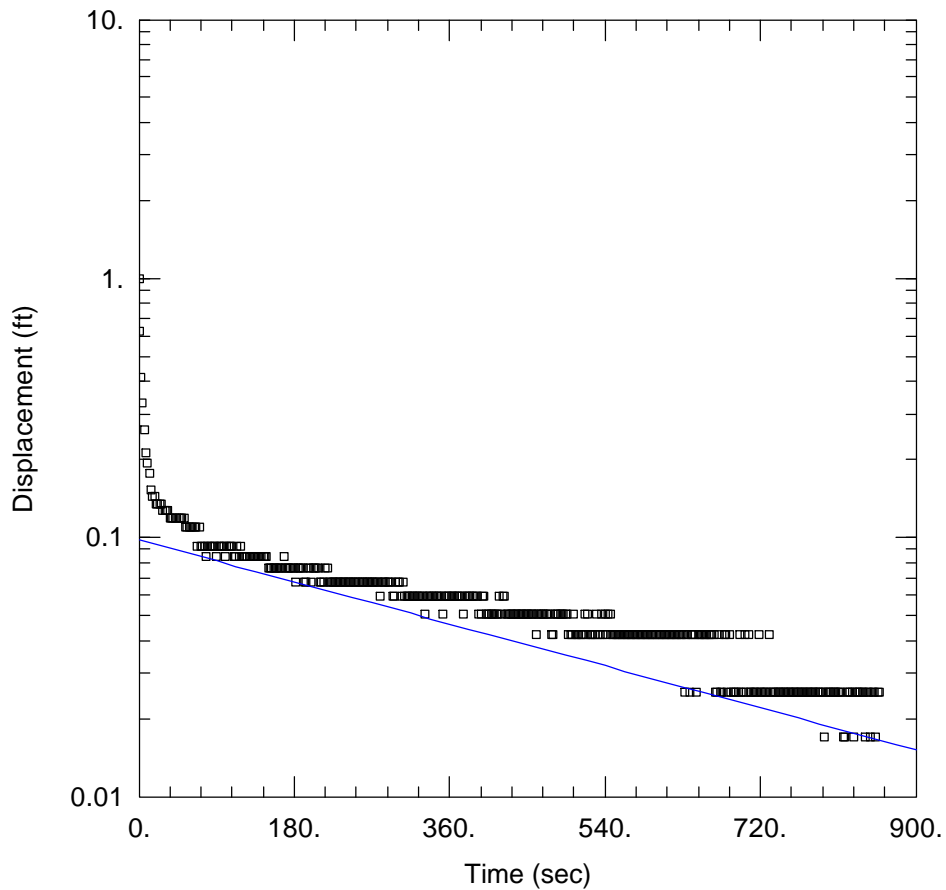
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.001347 cm/sec

y0 = 0.7 ft



MW-8 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-8\_1.aqt

Date: 10/06/09

Time: 10:31:54

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-8

Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-8)

Initial Displacement: 1. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.333 ft

Well Skin Radius: 0.333 ft

Screen Length: 5. ft

Total Well Penetration Depth: 5.3 ft

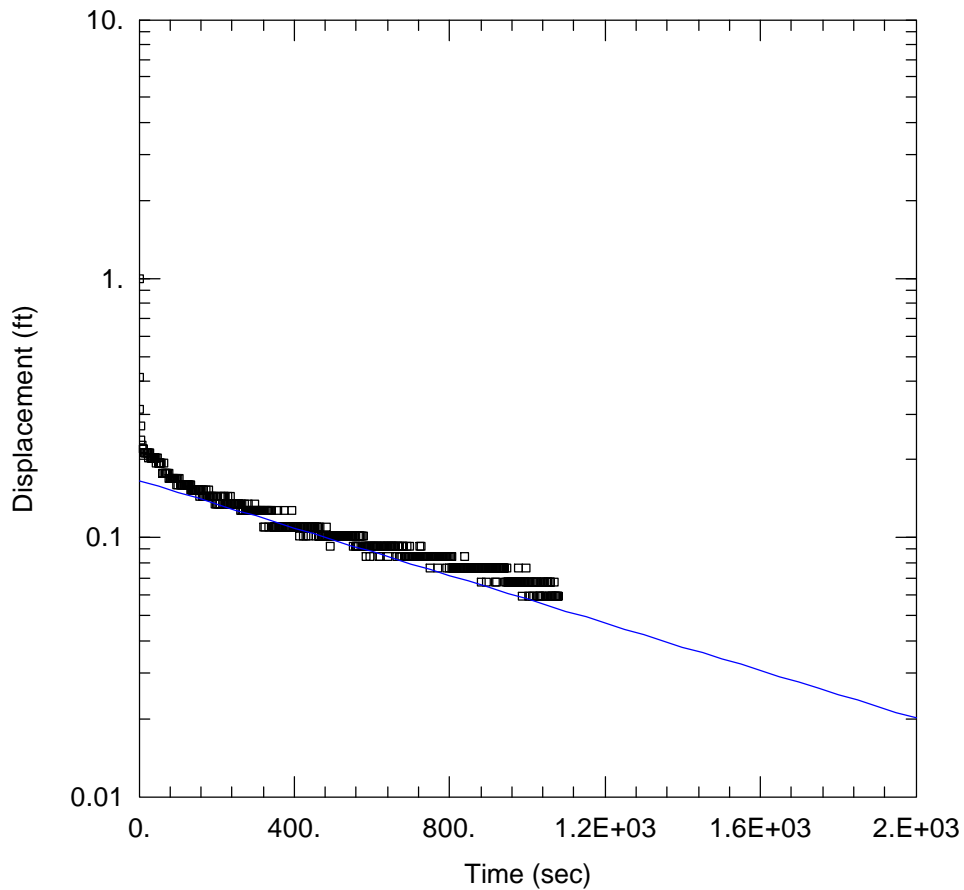
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 7.355E-05 cm/sec

y0 = 0.09792 ft



MW-8 RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-8\_2.aqt

Date: 10/06/09

Time: 10:31:40

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-8

Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-8)

Initial Displacement: 1. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.333 ft

Well Skin Radius: 0.333 ft

Screen Length: 5. ft

Total Well Penetration Depth: 5.3 ft

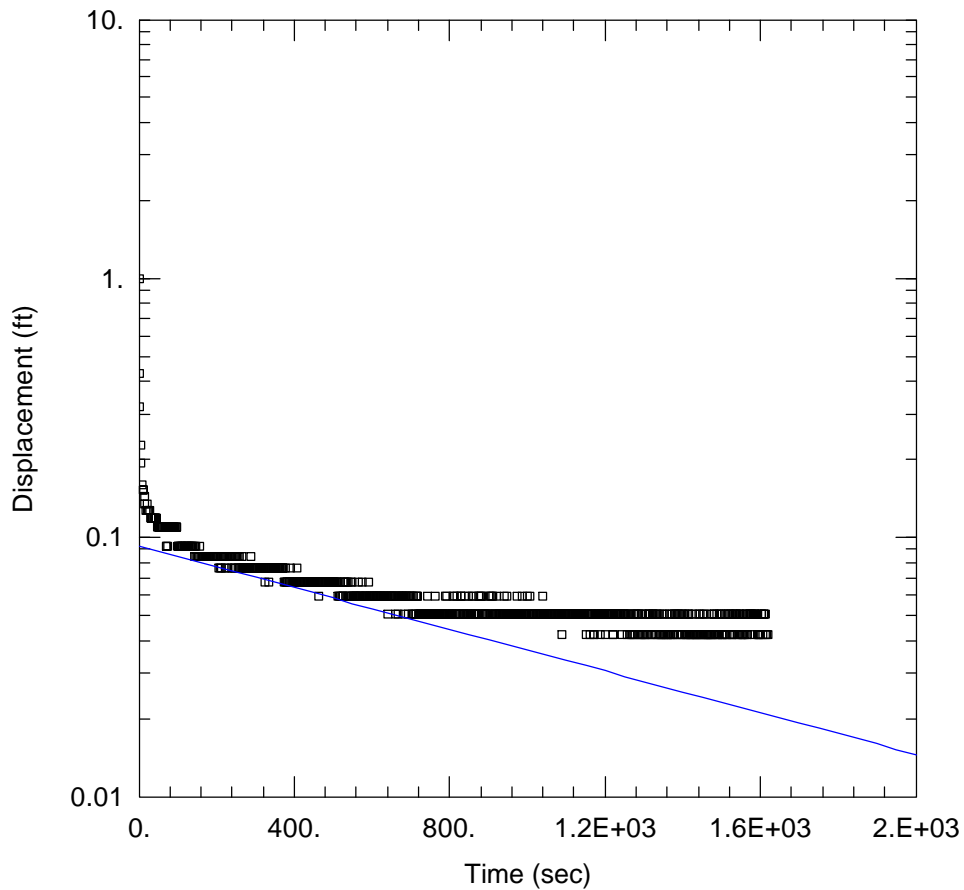
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 3.746E-05 cm/sec

y0 = 0.1662 ft



### MW-8 FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-8\_3.aqt

Date: 10/06/09

Time: 10:31:29

#### PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-8

Test Date: March 6, 2009

#### AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

#### WELL DATA (MW-8)

Initial Displacement: 1. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.333 ft

Well Skin Radius: 0.333 ft

Screen Length: 5. ft

Total Well Penetration Depth: 5.3 ft

#### SOLUTION

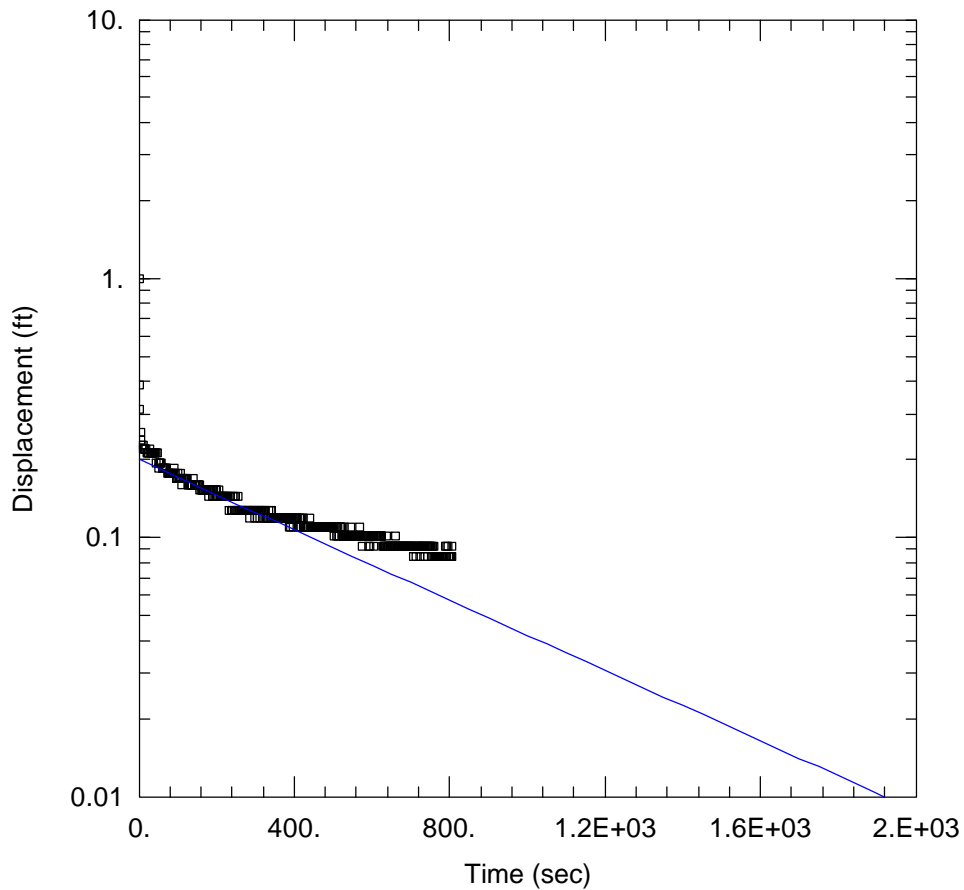
Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 3.283E-05 cm/sec

y0 = 0.09273 ft





MW-8 RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-8\_4.aqt

Date: 10/06/09

Time: 10:31:15

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-8

Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-8)

Initial Displacement: 1. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.333 ft

Well Skin Radius: 0.333 ft

Screen Length: 5. ft

Total Well Penetration Depth: 5.3 ft

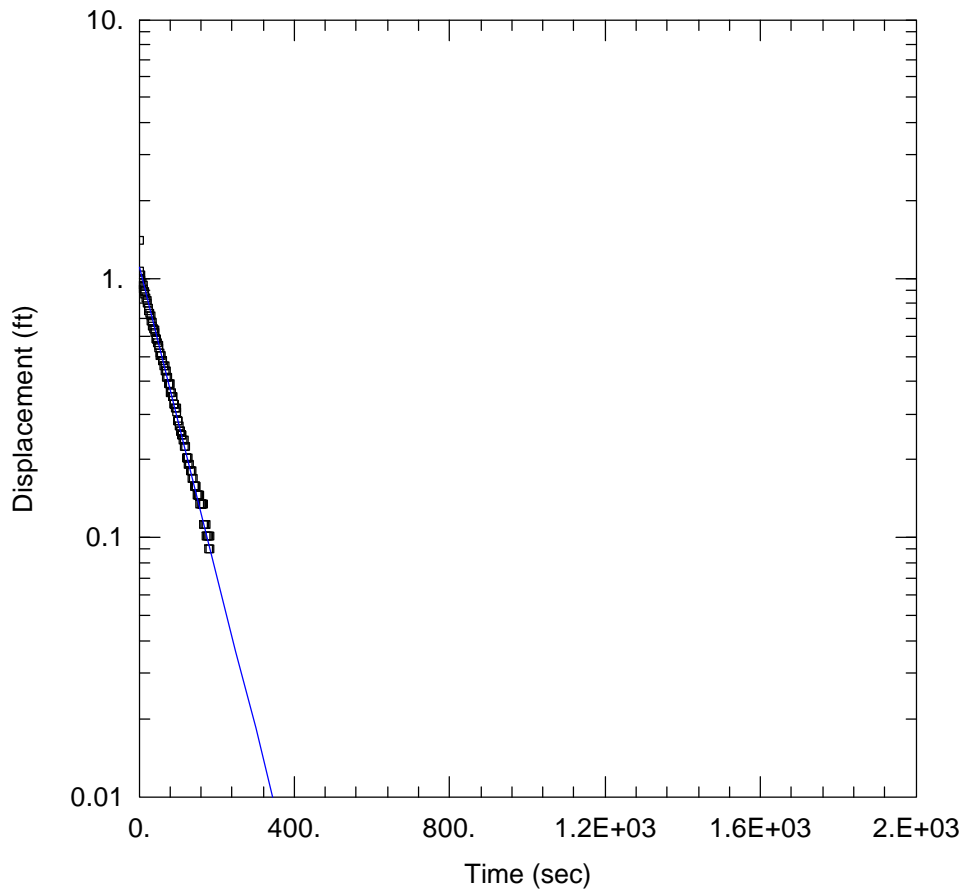
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 5.531E-05 cm/sec

y0 = 0.1995 ft



MW-9 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-9\_1.aqt

Date: 10/06/09

Time: 10:33:28

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-9

Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-9)

Initial Displacement: 1. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.333 ft

Well Skin Radius: 0.333 ft

Screen Length: 5. ft

Total Well Penetration Depth: 4.8 ft

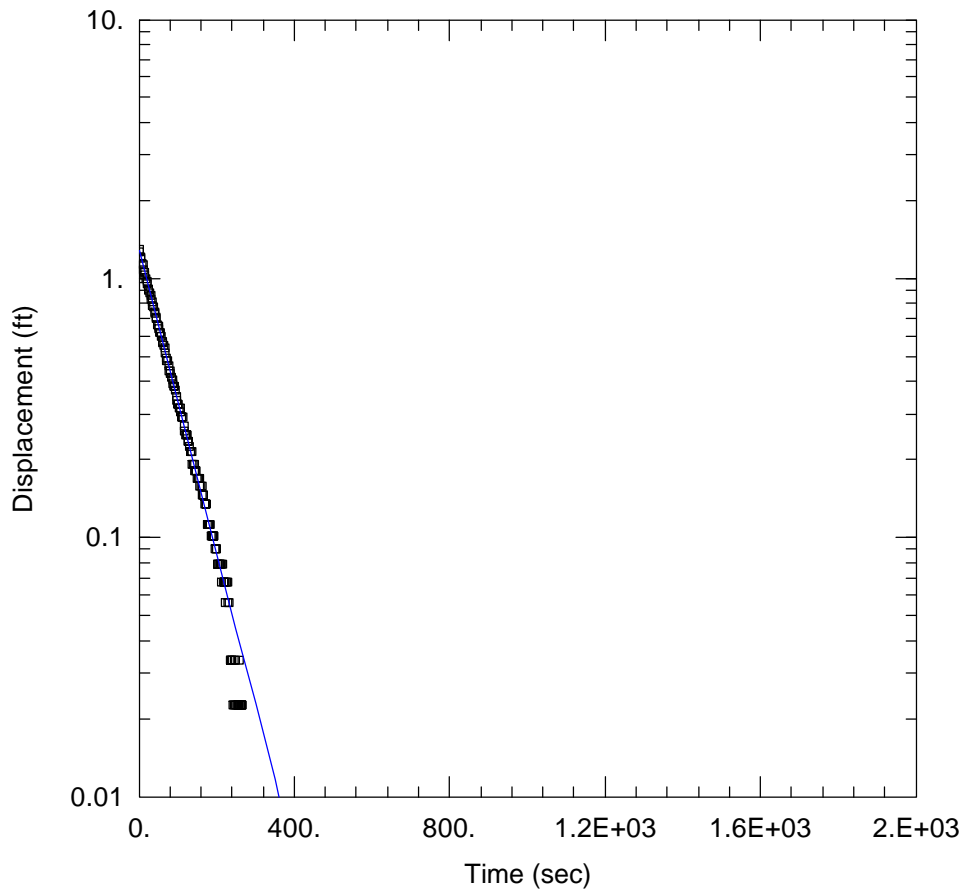
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0004719 cm/sec

y0 = 1.11 ft



MW-9 RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-9\_2.aqt

Date: 10/06/09

Time: 10:33:15

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-9

Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-9)

Initial Displacement: 1. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.333 ft

Well Skin Radius: 0.333 ft

Screen Length: 5. ft

Total Well Penetration Depth: 4.8 ft

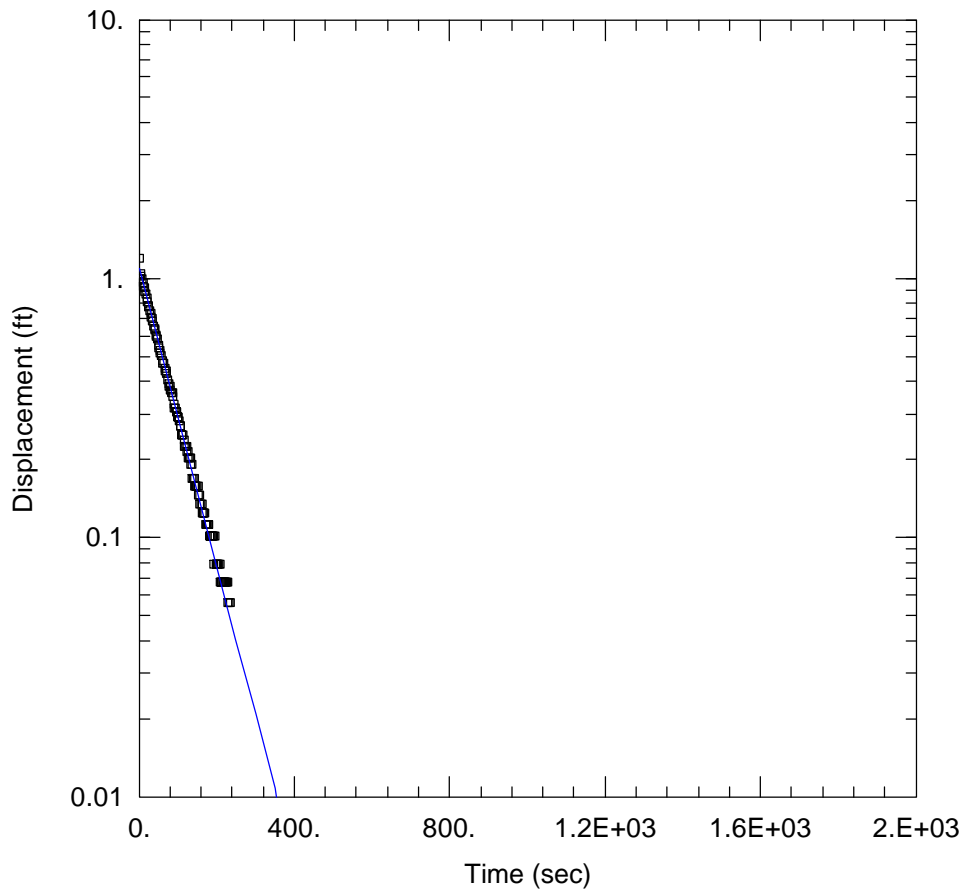
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0004641 cm/sec

y0 = 1.285 ft



### MW-9 FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-9\_3.aqt

Date: 10/06/09

Time: 10:33:01

#### PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-9

Test Date: February 9, 2009

#### AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

#### WELL DATA (MW-9)

Initial Displacement: 1. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.333 ft

Well Skin Radius: 0.333 ft

Screen Length: 5. ft

Total Well Penetration Depth: 4.8 ft

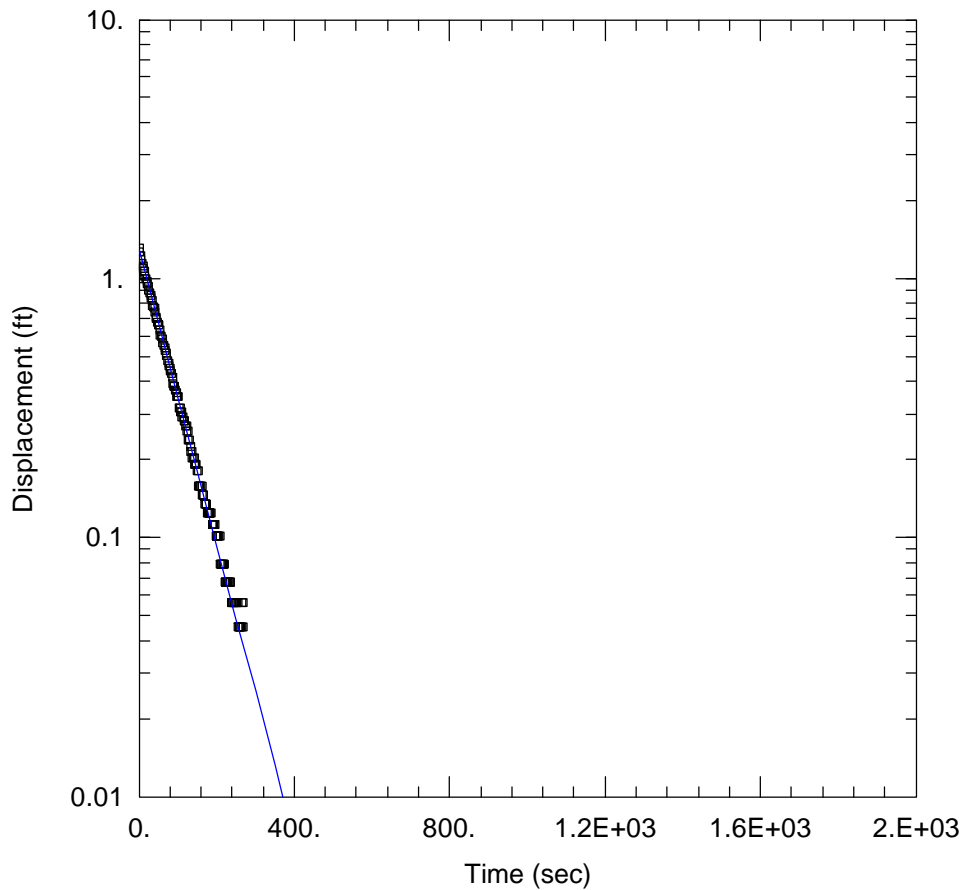
#### SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.000456 cm/sec

y0 = 1.099 ft



MW-9 RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-9\_4.aqt

Date: 10/06/09

Time: 10:32:43

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-9

Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-9)

Initial Displacement: 1. ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.333 ft

Well Skin Radius: 0.333 ft

Screen Length: 5. ft

Total Well Penetration Depth: 4.8 ft

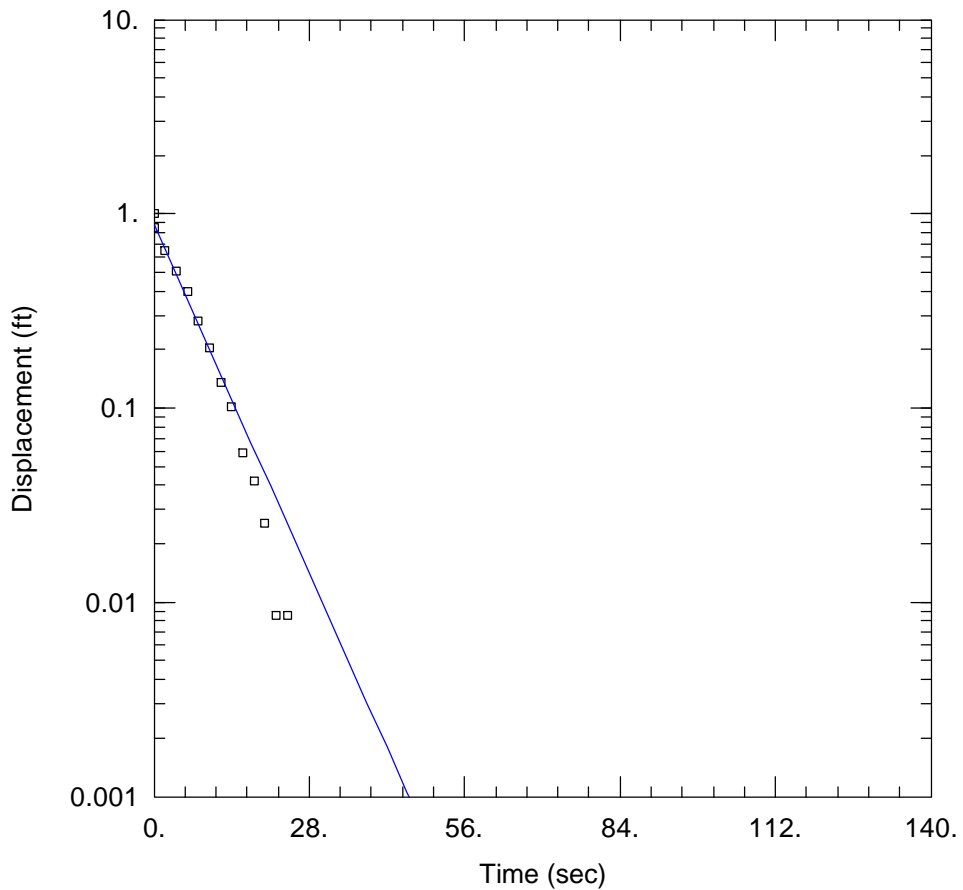
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0004505 cm/sec

y0 = 1.28 ft



MW-9A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-9A\_1.aqt

Date: 10/06/09

Time: 10:35:57

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-9A

Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 30 ft

Anisotropy Ratio (Kz/Kr): 1

WELL DATA (MW-9A)

Initial Displacement: 1 ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5 ft

Total Well Penetration Depth: 26 ft

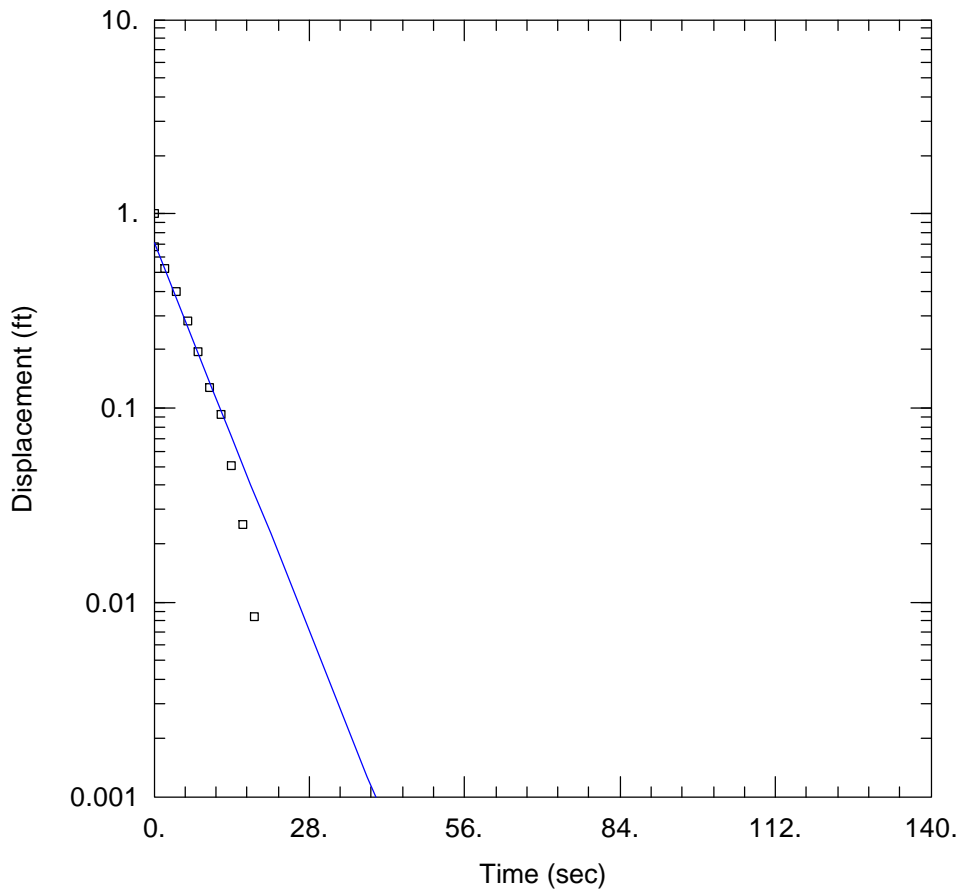
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.03673 cm/sec

y0 = 0.8768 ft



MW-9A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-9A\_2.aqt

Date: 10/06/09

Time: 10:35:46

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-9A

Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-9A)

Initial Displacement: 1. ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 26. ft

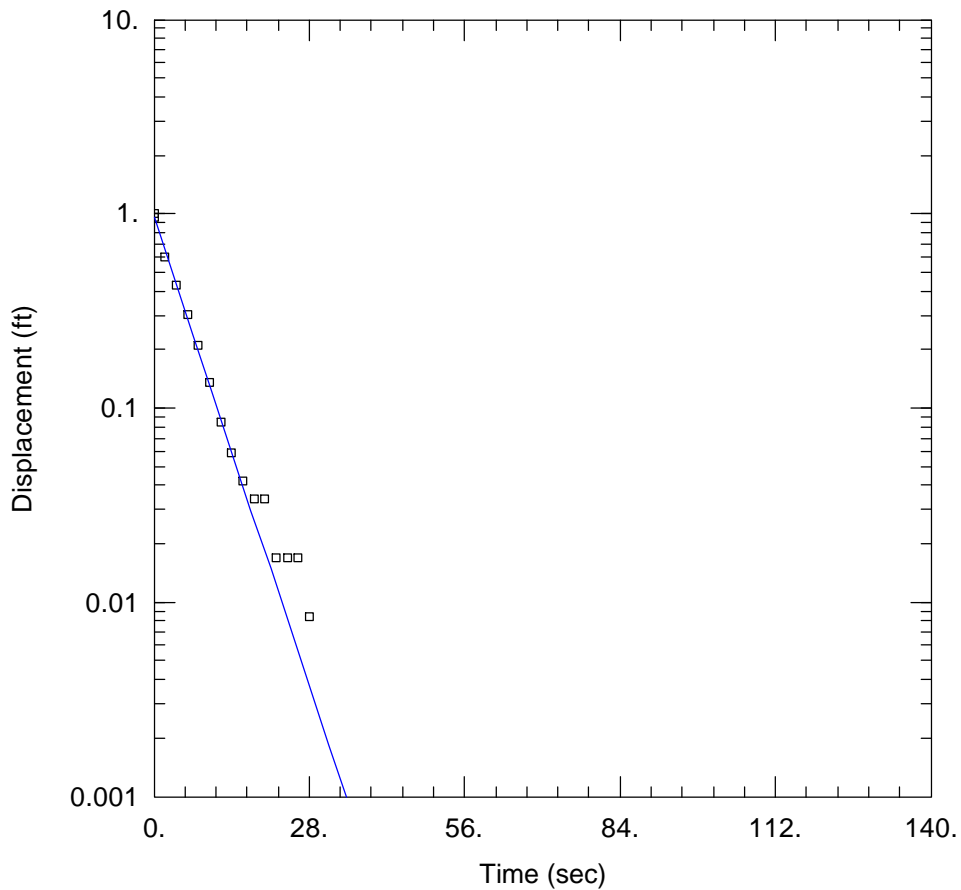
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.04088 cm/sec

y0 = 0.7099 ft



MW-9A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-9A\_3.aqt

Date: 10/06/09

Time: 10:35:34

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-9A

Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-9A)

Initial Displacement: 1. ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 26. ft

SOLUTION

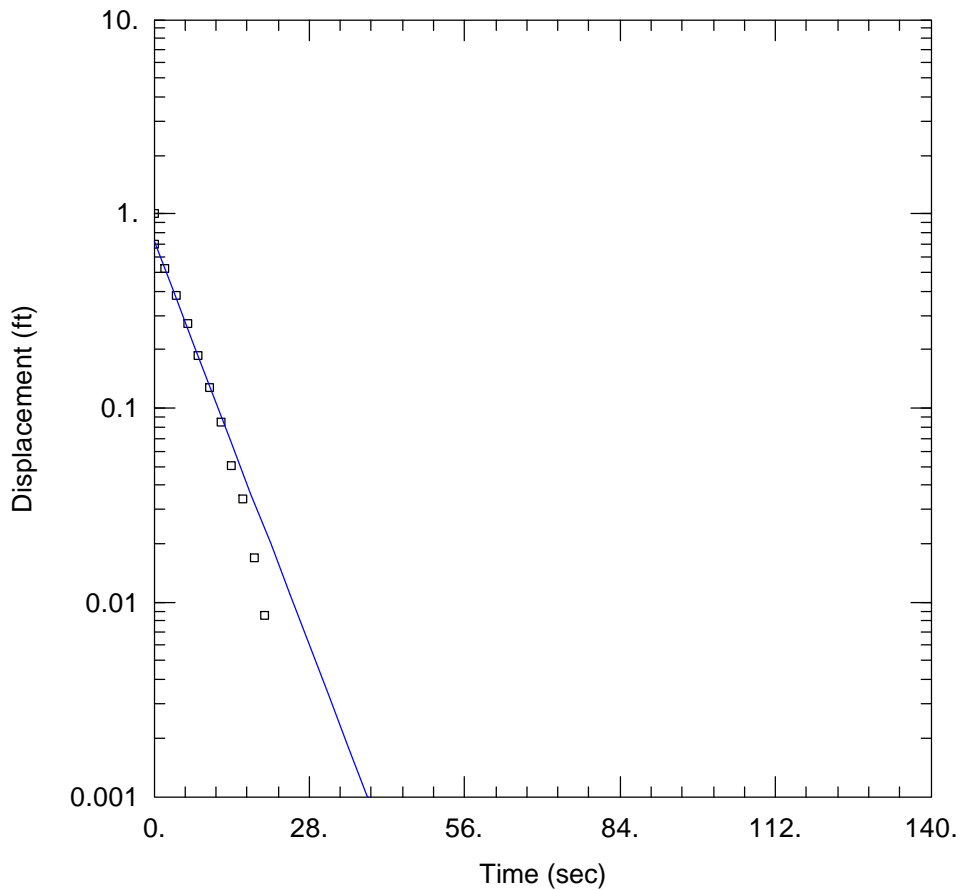
Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.04934 cm/sec

y0 = 0.9581 ft





MW-9A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-9A\_4.aqt

Date: 10/06/09

Time: 10:35:15

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-9A

Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-9A)

Initial Displacement: 1. ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 26. ft

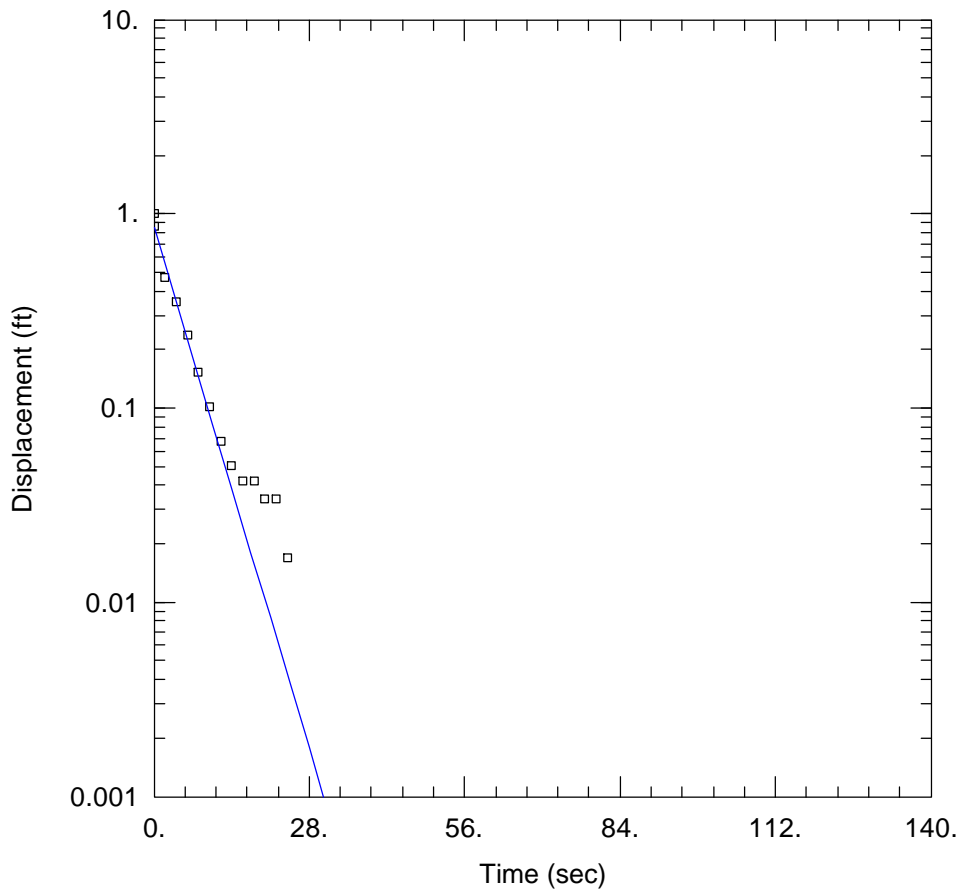
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0425 cm/sec

y0 = 0.7211 ft



MW-9A FALLING HEAD SLUG TEST #3

Data Set: C:\Buffalo China\MW-9A\_5.aqt

Date: 10/06/09

Time: 10:34:57

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-9A

Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-9A)

Initial Displacement: 1. ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 26. ft

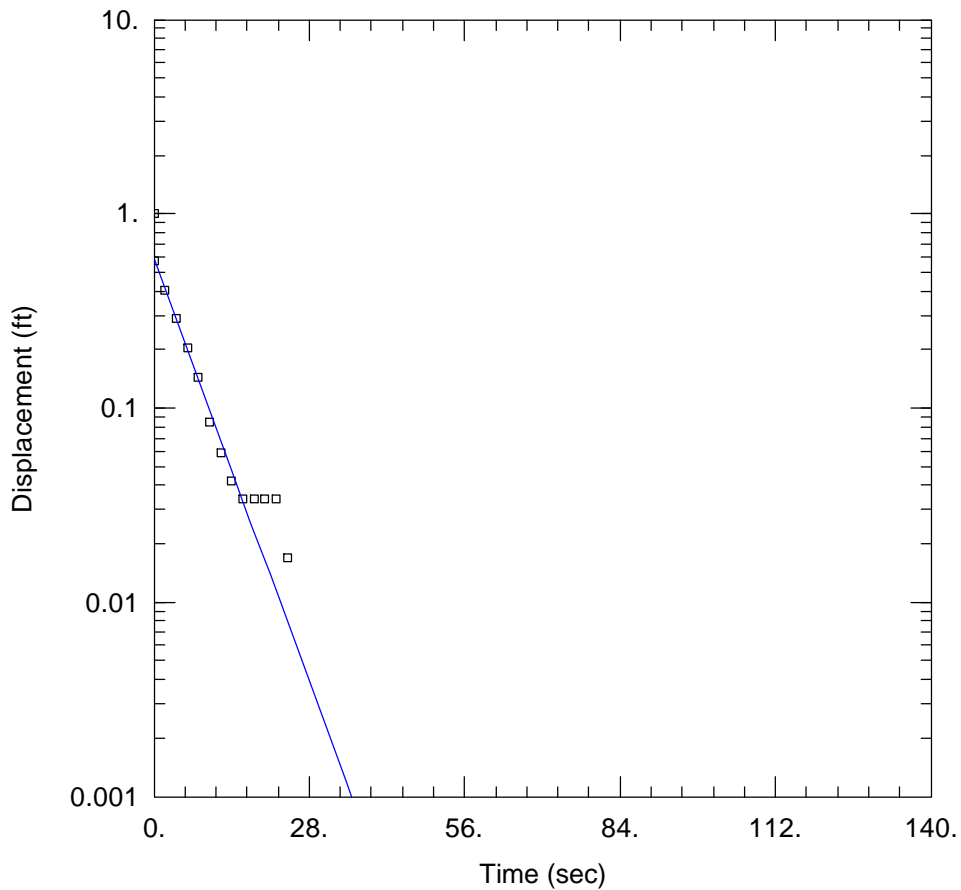
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.05474 cm/sec

y0 = 0.8437 ft



MW-9A RISING HEAD SLUG TEST #3

Data Set: C:\Buffalo China\MW-9A\_6.aqt

Date: 10/06/09

Time: 10:34:43

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-9A

Test Date: February 9, 2009

AQUIFER DATA

Saturated Thickness: 30. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-9A)

Initial Displacement: 1. ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 26. ft

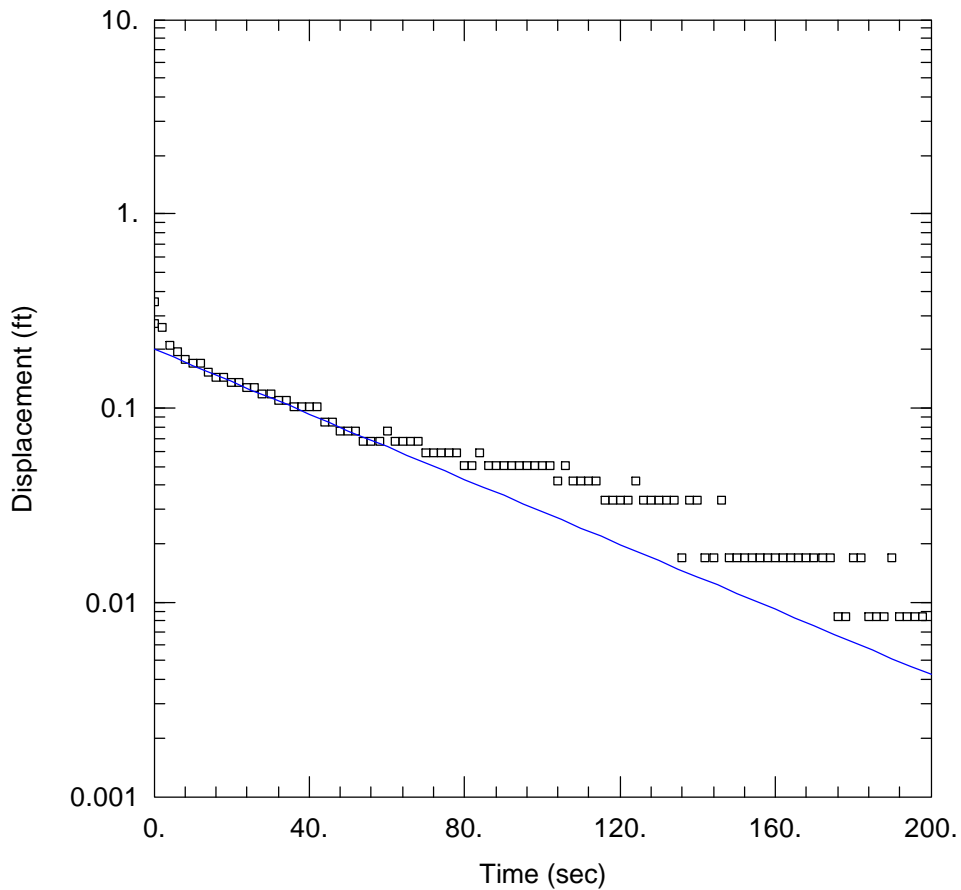
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0444 cm/sec

y0 = 0.5833 ft



MW-10 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-10\_1.aqt

Date: 07/13/09

Time: 10:36:33

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-10

Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-10)

Initial Displacement: 0.35 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 1.5 ft

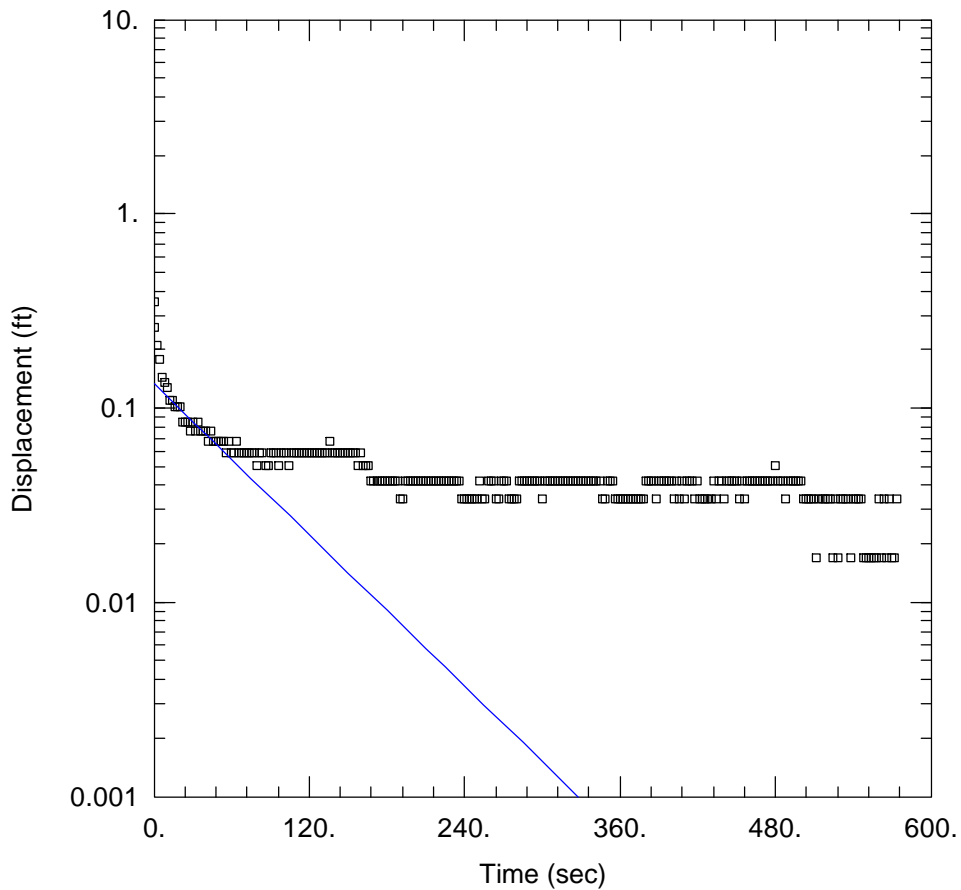
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0004363 cm/sec

y0 = 0.2013 ft



MW-10 RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-10\_2.aqt

Date: 07/13/09

Time: 10:37:04

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-10

Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-10)

Initial Displacement: 0.35 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 1.5 ft

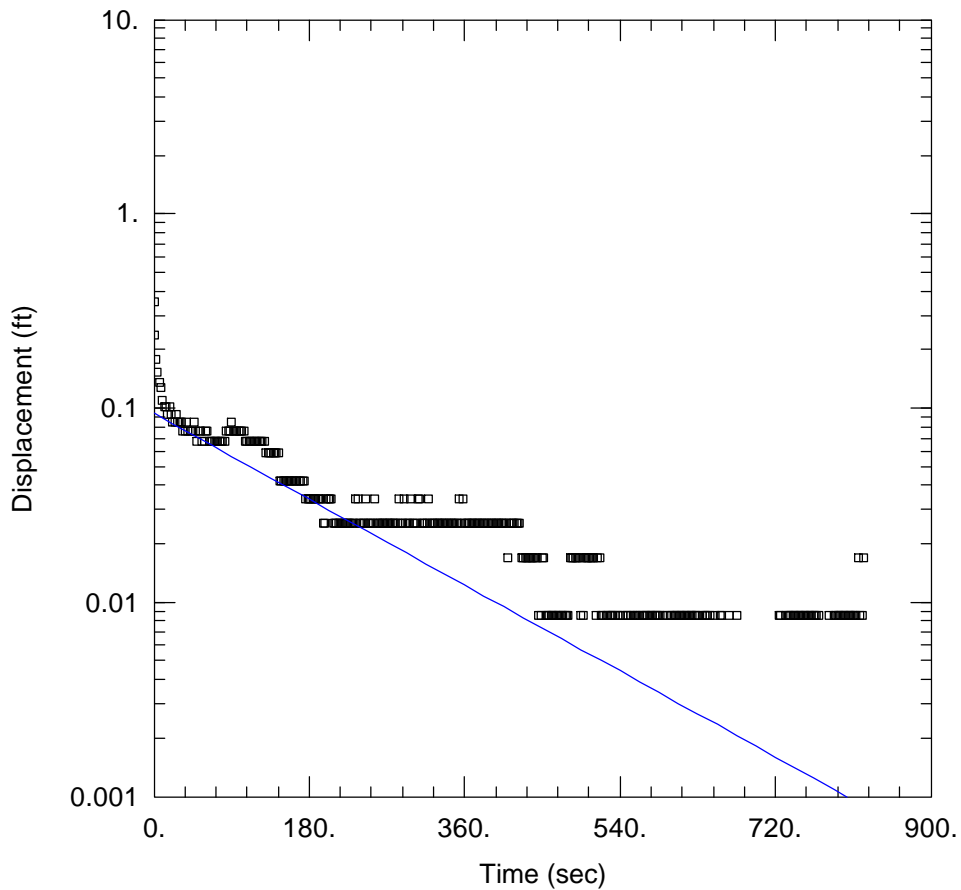
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0003373 cm/sec

y0 = 0.1332 ft



MW-10 FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-10\_3.aqt

Date: 07/13/09

Time: 10:37:30

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-10

Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-10)

Initial Displacement: 0.35 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 1.5 ft

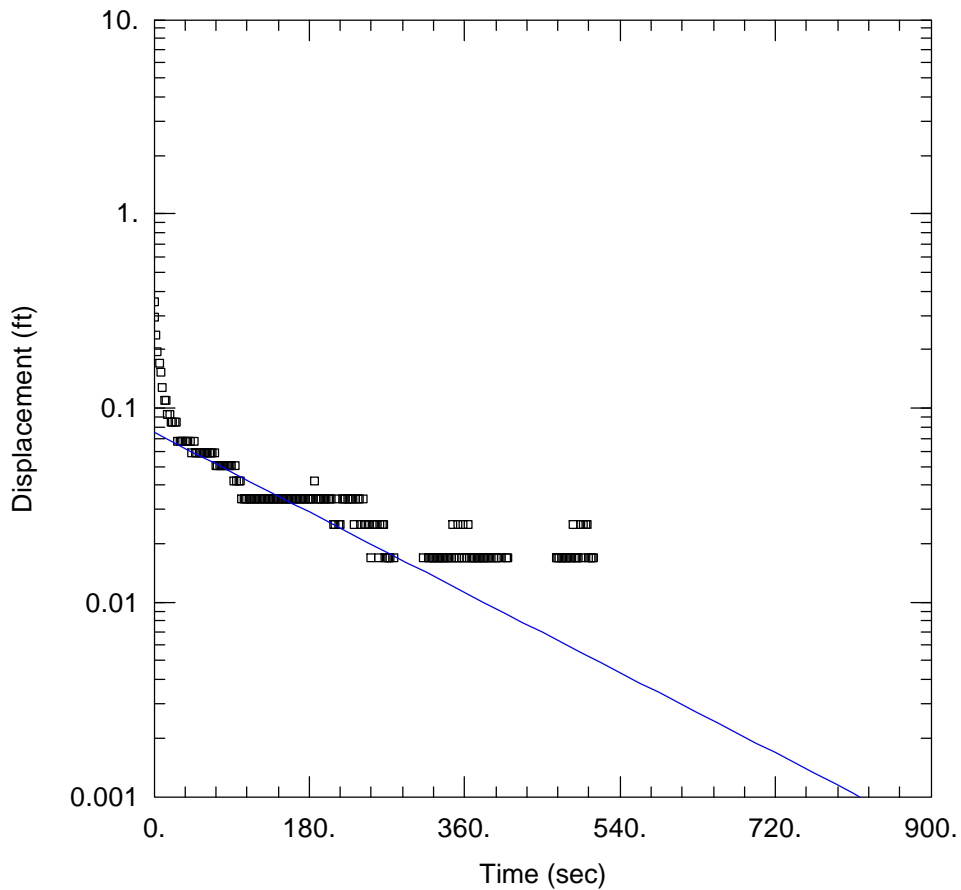
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0001278 cm/sec

y0 = 0.09379 ft



MW-10 RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-10\_4.aqt

Date: 07/13/09

Time: 10:37:51

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-10

Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-10)

Initial Displacement: 0.35 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 1.5 ft

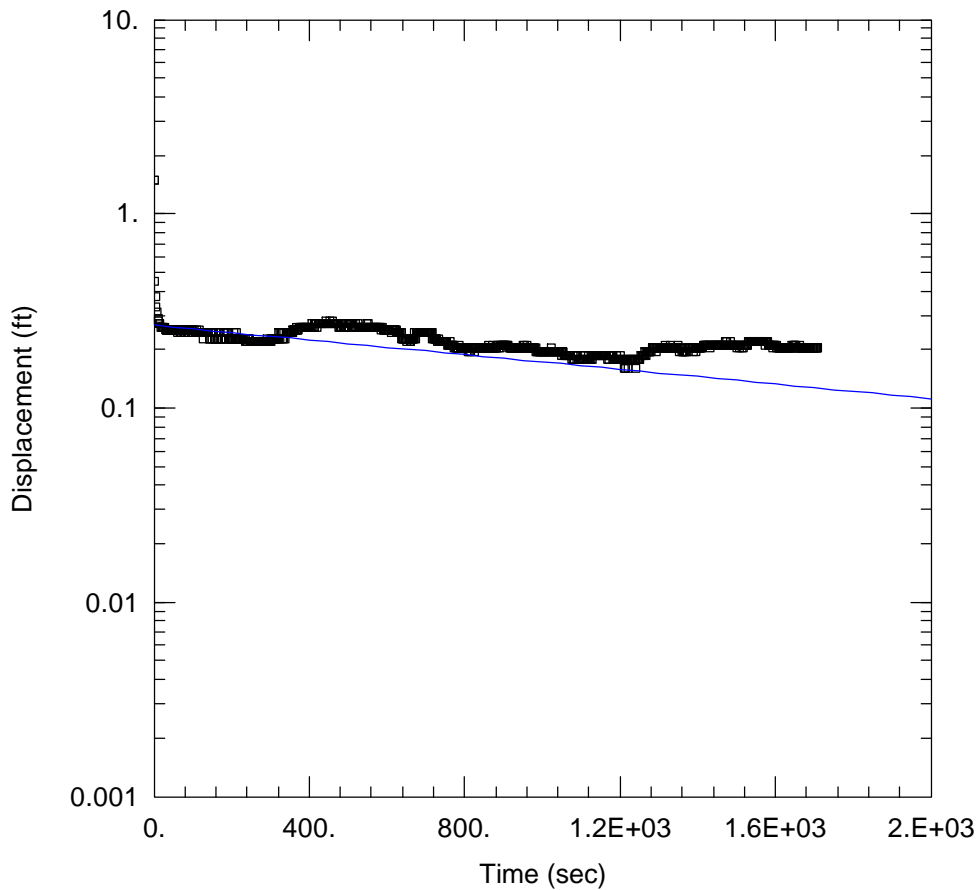
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0001193 cm/sec

y0 = 0.07513 ft



MW-11 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-11\_1.aqt

Date: 07/13/09

Time: 10:38:55

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-11

Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-11)

Initial Displacement: 1.5 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 5. ft

SOLUTION

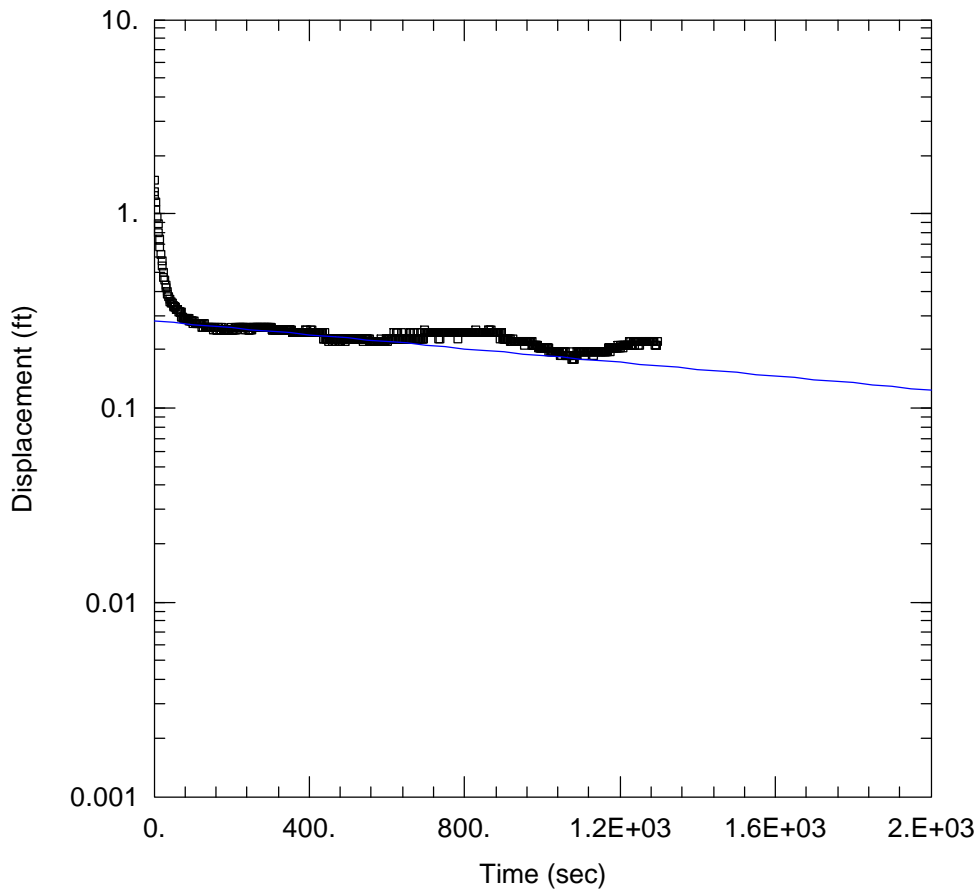
Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 1.523E-05 cm/sec

y0 = 0.2666 ft





MW-11 RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-11\_2.aqt

Date: 07/13/09

Time: 10:39:25

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-11

Test Date: February 16, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-11)

Initial Displacement: 1.5 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 5. ft

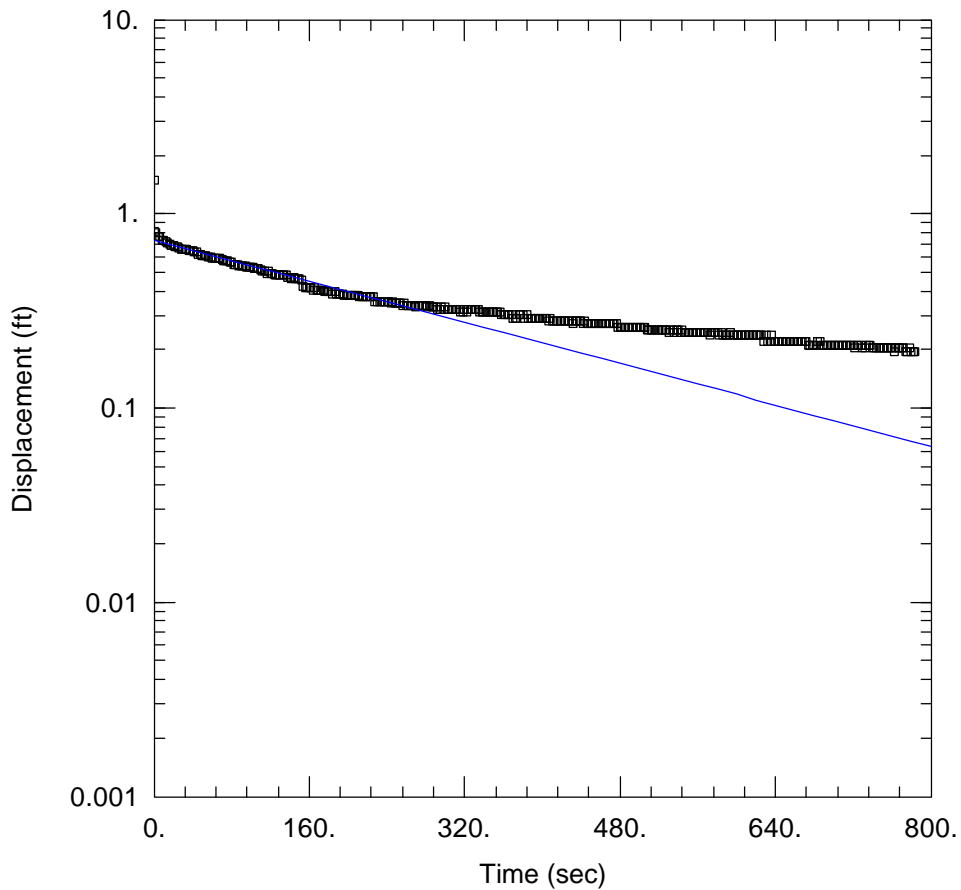
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 1.433E-05 cm/sec

y0 = 0.2808 ft



MW-13A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-13A\_1.aqt

Date: 10/06/09

Time: 10:37:36

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-13A

Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-13A)

Initial Displacement: 1.5 ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 9. ft

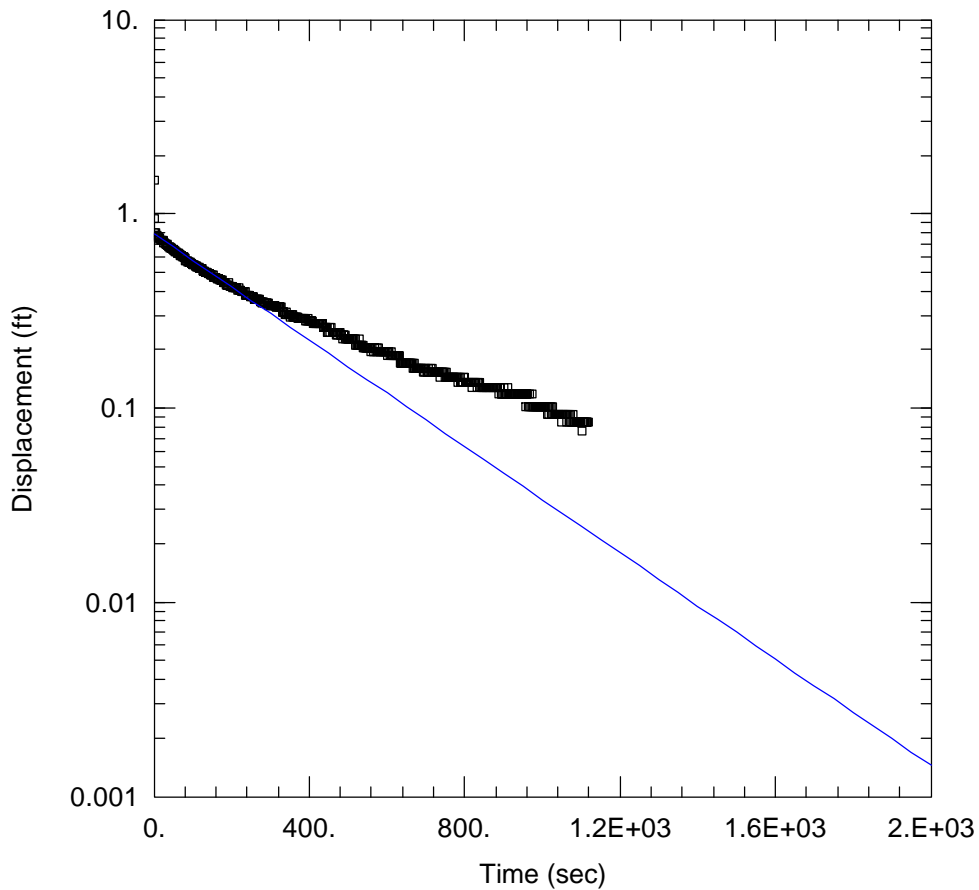
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0006392 cm/sec

y0 = 0.729 ft



MW-13A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-13A\_2.aqt

Date: 10/06/09

Time: 10:37:22

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-13A

Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-13A)

Initial Displacement: 1.5 ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 9. ft

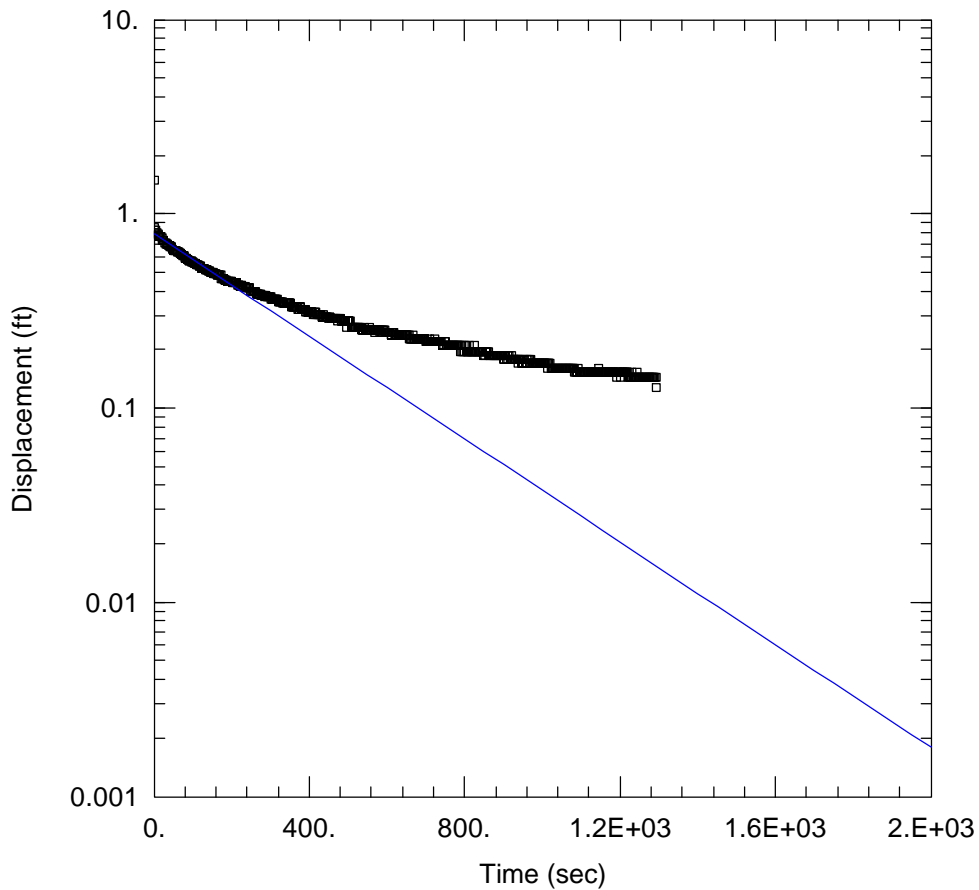
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0006615 cm/sec

y0 = 0.7895 ft



MW-13A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-13A\_3.aqt

Date: 10/06/09

Time: 10:37:08

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-13A

Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-13A)

Initial Displacement: 1.5 ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 9. ft

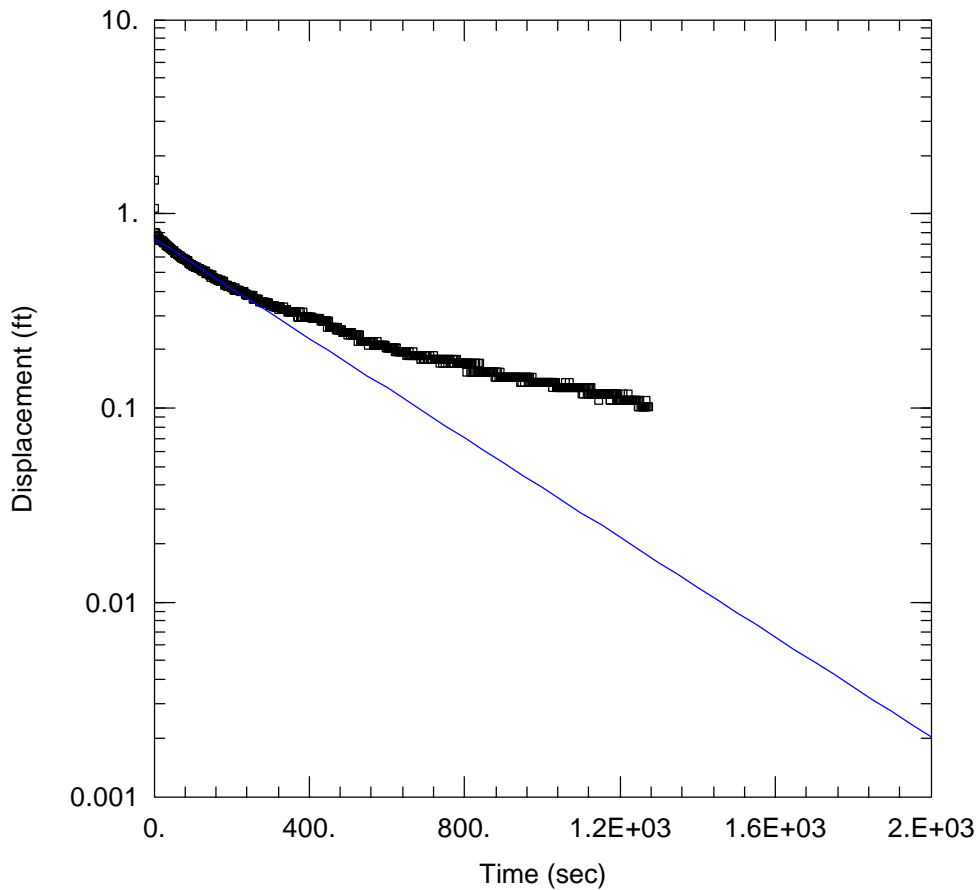
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0006388 cm/sec

y0 = 0.7892 ft



MW-13A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-13A\_4.aqt

Date: 10/06/09

Time: 10:36:52

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-13A

Test Date: February 3, 2009

AQUIFER DATA

Saturated Thickness: 15. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-13A)

Initial Displacement: 1.5 ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 9. ft

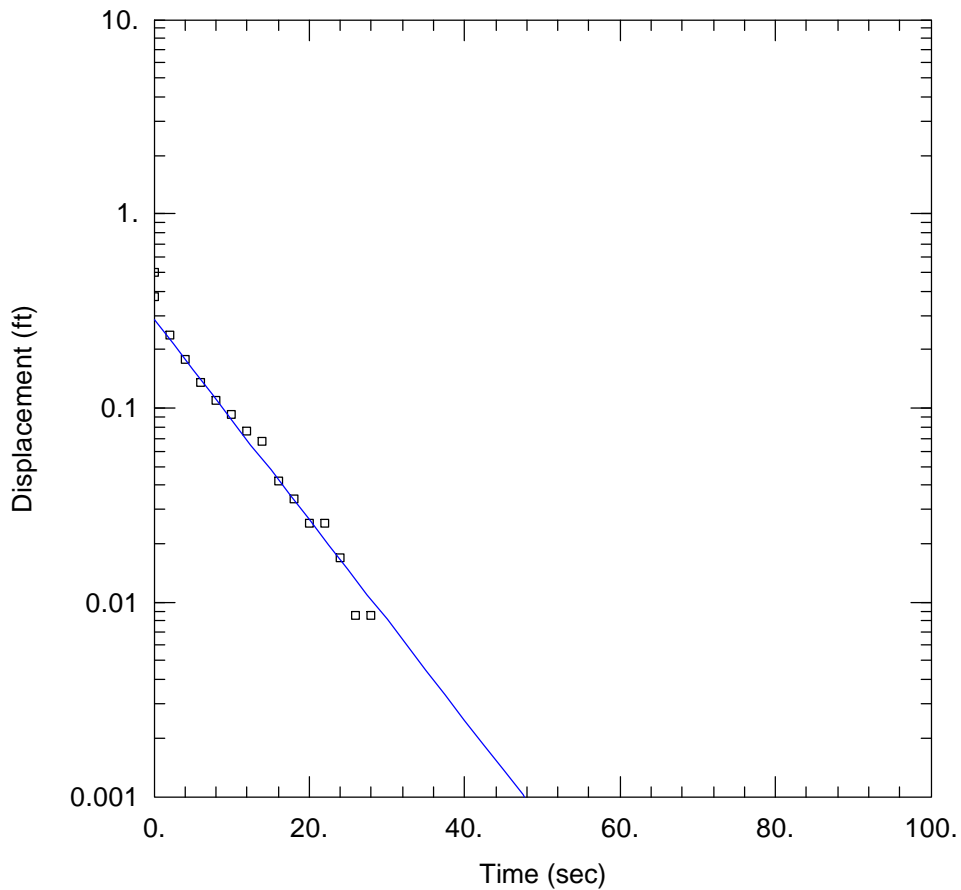
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0006198 cm/sec

y0 = 0.7447 ft



MW-14A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-14A\_1.aqt

Date: 07/13/09

Time: 10:43:32

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-14A

Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 15. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-14A)

Initial Displacement: 0.5 ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 4.8 ft

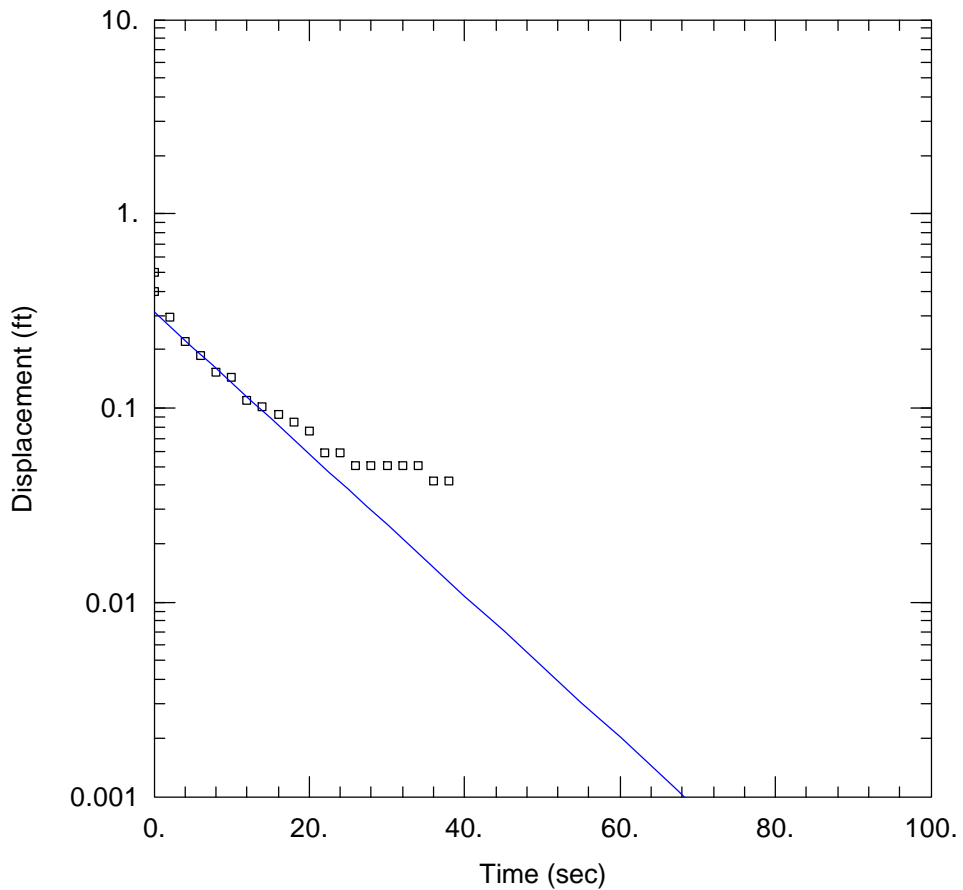
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.02176 cm/sec

y0 = 0.2858 ft



MW-14A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-14A\_2.aqt

Date: 07/13/09

Time: 10:43:57

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-14A

Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 15. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-14A)

Initial Displacement: 0.5 ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 4.8 ft

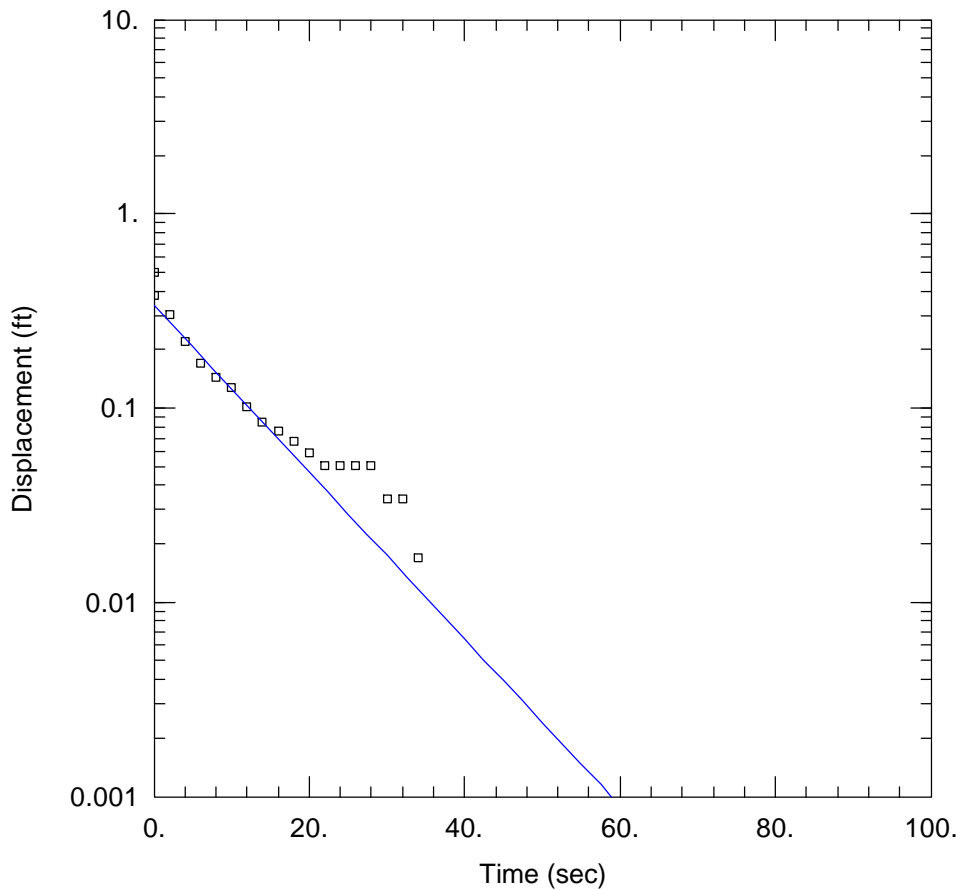
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.01542 cm/sec

y0 = 0.3126 ft



MW-14A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-14A\_3.aqt

Date: 07/13/09

Time: 10:44:33

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-14A

Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 15. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-14A)

Initial Displacement: 0.5 ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 4.8 ft

SOLUTION

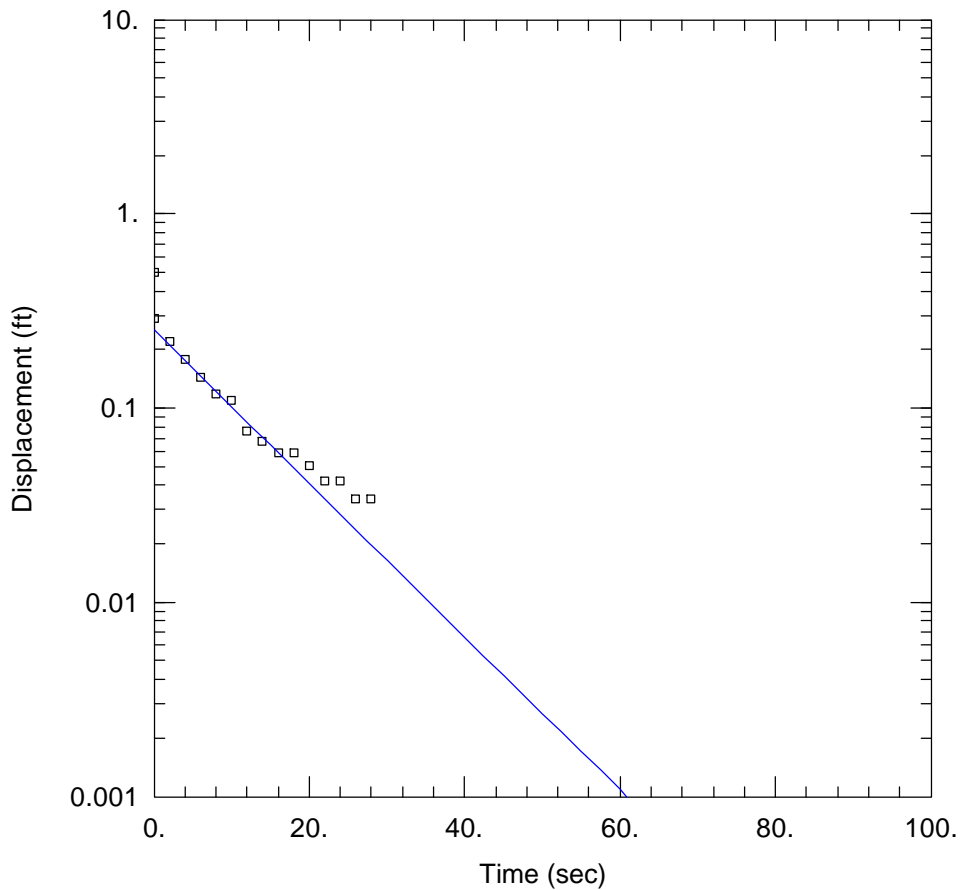
Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.01813 cm/sec

y0 = 0.3373 ft





MW-14A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-14A\_4.aqt

Date: 07/13/09

Time: 10:45:12

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-14A

Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 15. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-14A)

Initial Displacement: 0.5 ft

Casing Radius: 0.167 ft

Wellbore Radius: 0.167 ft

Well Skin Radius: 0.167 ft

Screen Length: 5. ft

Total Well Penetration Depth: 4.8 ft

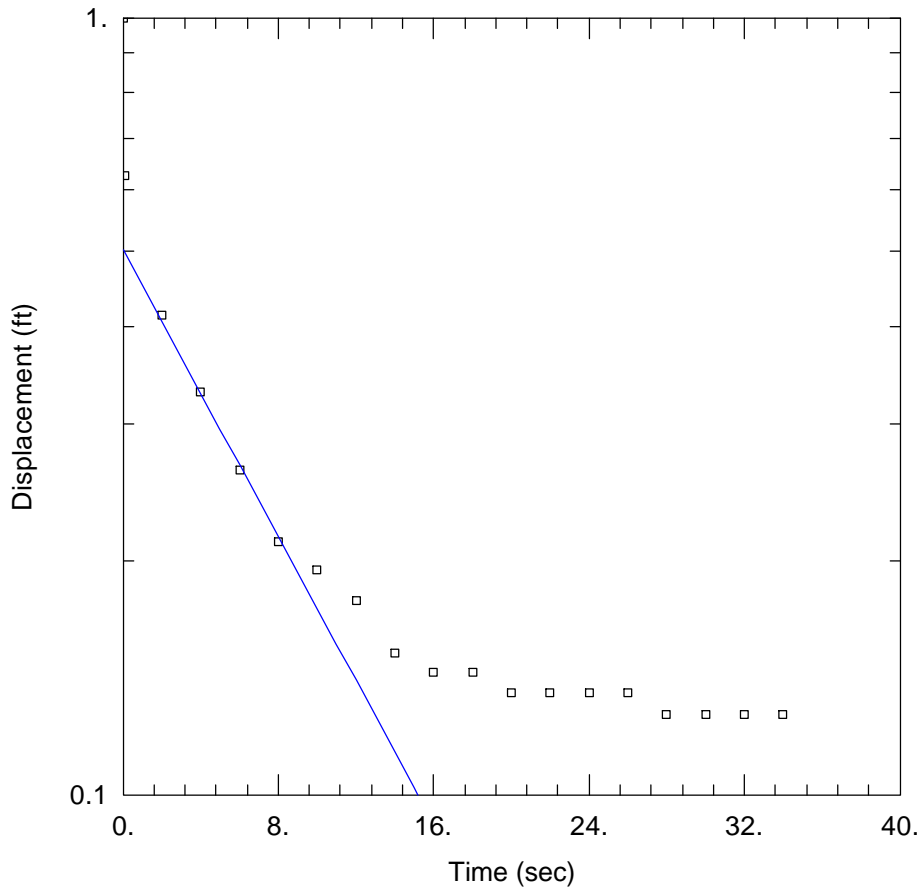
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.01664 cm/sec

y0 = 0.2507 ft



MW-15A FALLING HEAD TEST #1

Data Set: C:\Buffalo China\MW15A\_1.aqt

Date: 10/06/09

Time: 11:52:54

PROJECT INFORMATION

Company: CRA

Client: Hodgson-Russ

Project: 37191

Test Location: Former Buffalo China Site

Test Well: MW-15A

Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 4. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15A)

Initial Displacement: 1. ft

Casing Radius: 0.33 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 4. ft

Total Well Penetration Depth: 4. ft

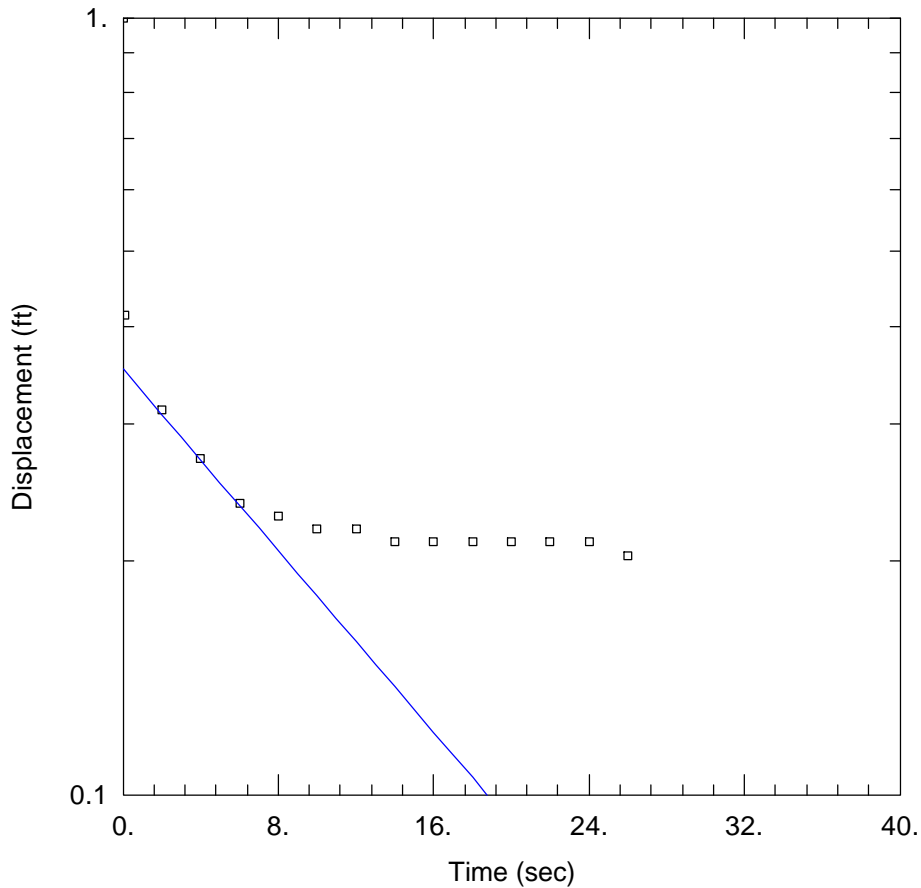
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.07939 cm/sec

y0 = 0.503 ft



MW-15A RISING HEAD TEST #1

Data Set: C:\Buffalo China\MW15A\_2.aqt

Date: 10/06/09

Time: 11:52:43

PROJECT INFORMATION

Company: CRA

Client: Hodgson-Russ

Project: 37191

Test Location: Former Buffalo China Site

Test Well: MW-15A

Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 4. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15A)

Initial Displacement: 1. ft

Casing Radius: 0.33 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 4. ft

Total Well Penetration Depth: 4. ft

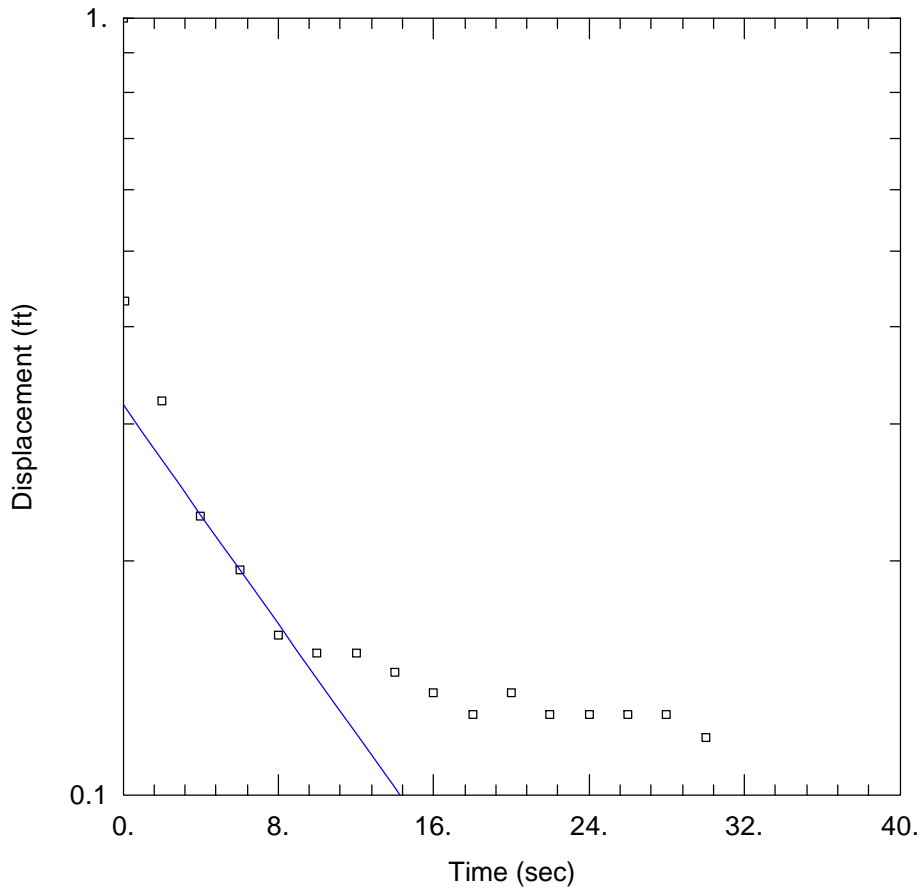
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.05019 cm/sec

y0 = 0.3526 ft



MW-15A FALLING HEAD TEST #2

Data Set: C:\Buffalo China\MW15A\_3.aqt

Date: 10/06/09

Time: 11:52:32

PROJECT INFORMATION

Company: CRA

Client: Hodgson-Russ

Project: 37191

Test Location: Former Buffalo China Site

Test Well: MW-15A

Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 4. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15A)

Initial Displacement: 1. ft

Casing Radius: 0.33 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 4. ft

Total Well Penetration Depth: 4. ft

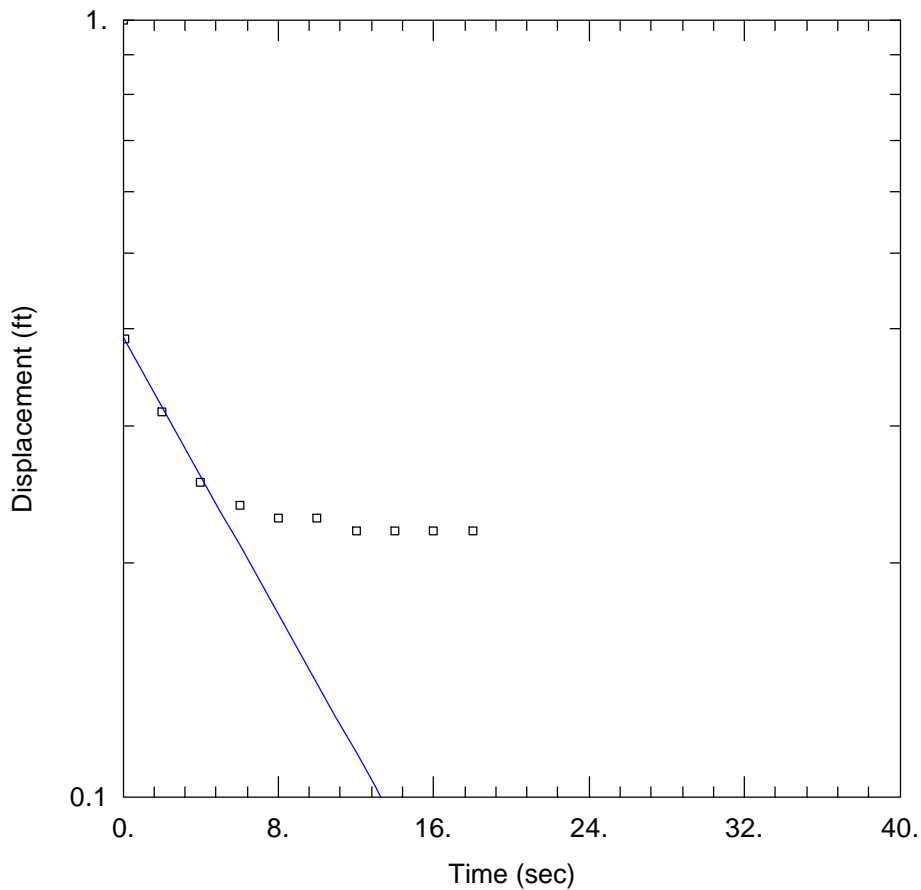
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.06055 cm/sec

y0 = 0.317 ft



MW-15A RISING HEAD TEST #2

Data Set: C:\Buffalo China\MW15A\_4.aqt

Date: 10/06/09

Time: 11:53:02

PROJECT INFORMATION

Company: CRA

Client: Hodgson-Russ

Project: 37191

Test Location: Former Buffalo China Site

Test Well: MW-15A

Test Date: March 6, 2009

AQUIFER DATA

Saturated Thickness: 4. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-15A)

Initial Displacement: 1. ft

Casing Radius: 0.33 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 4. ft

Total Well Penetration Depth: 4. ft

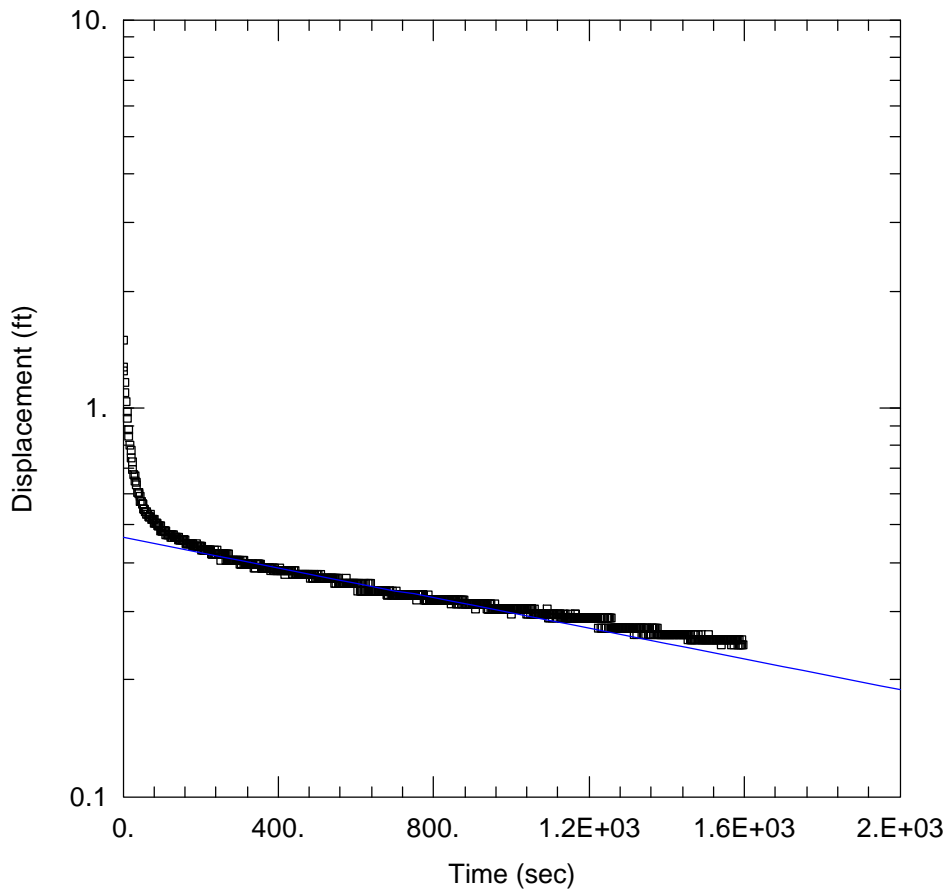
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.07669 cm/sec

y0 = 0.3901 ft



MW-18 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-18\_1.aqt

Date: 07/13/09

Time: 10:53:46

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-18

Test Date: February 10, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18)

Initial Displacement: 1.5 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 3.8 ft

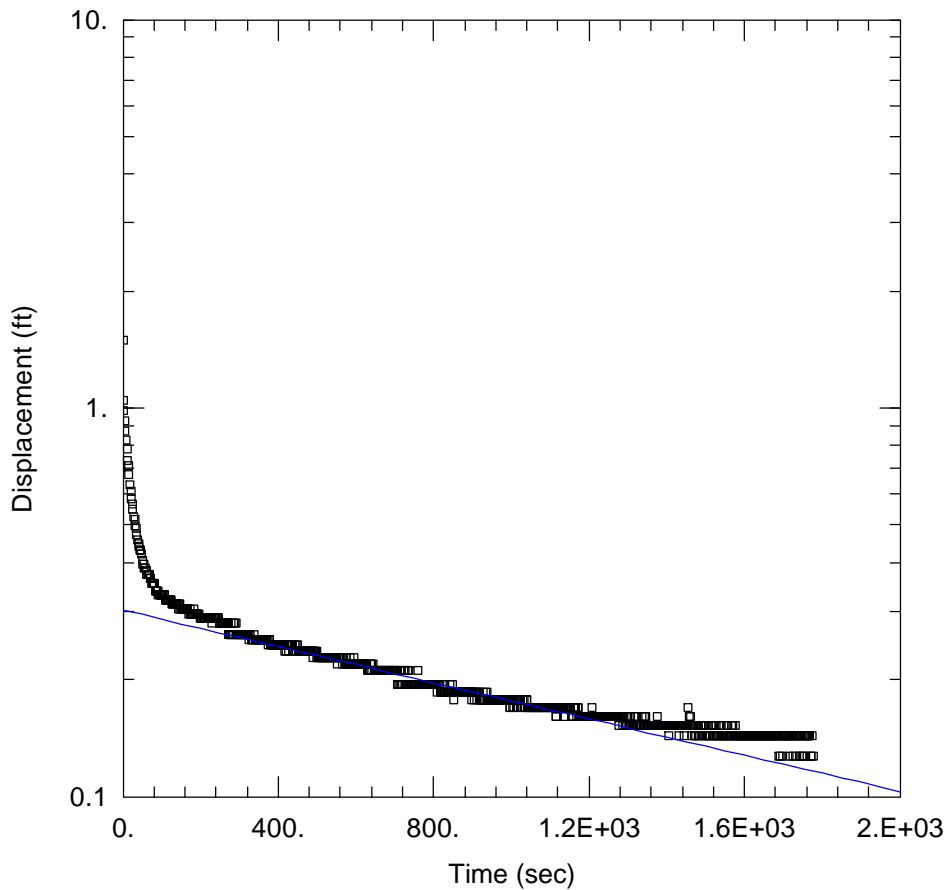
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 1.465E-05 cm/sec

y0 = 0.4654 ft



MW-18 RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW-18\_2.aqt

Date: 07/13/09

Time: 10:54:33

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-18

Test Date: February 10, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18)

Initial Displacement: 1.5 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 3.8 ft

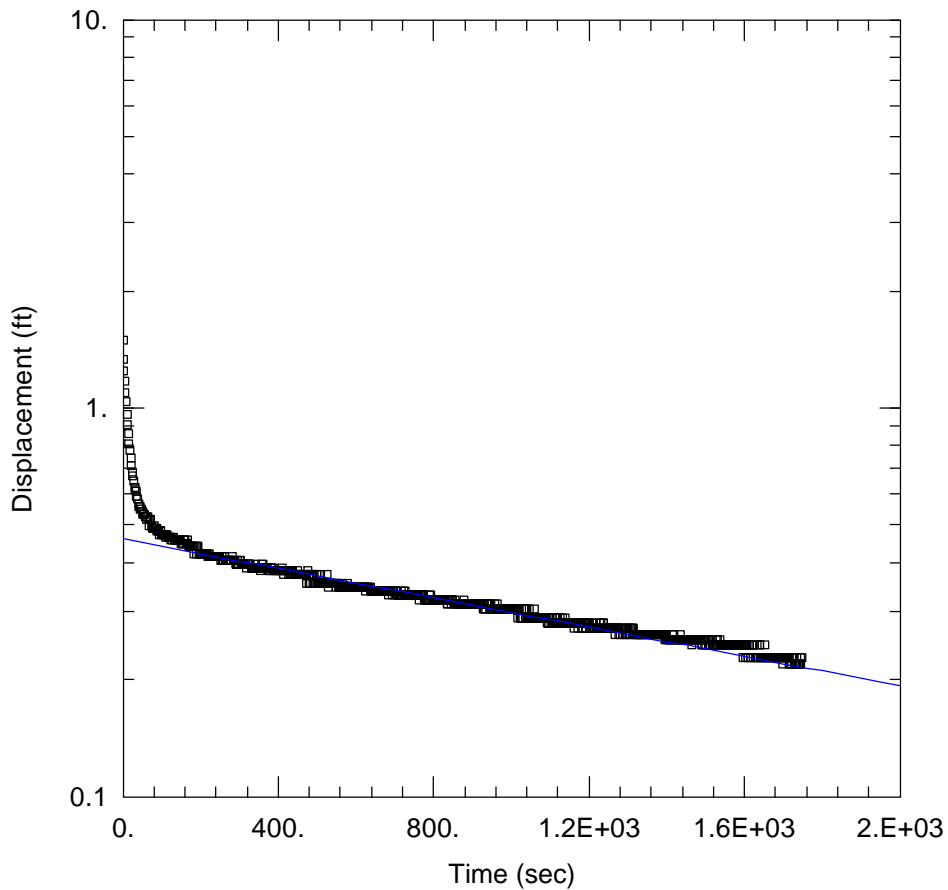
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 1.741E-05 cm/sec

y0 = 0.3017 ft



MW-18 FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-18\_3.aqt

Date: 07/13/09

Time: 10:55:23

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-18

Test Date: February 10, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18)

Initial Displacement: 1.5 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 3.8 ft

SOLUTION

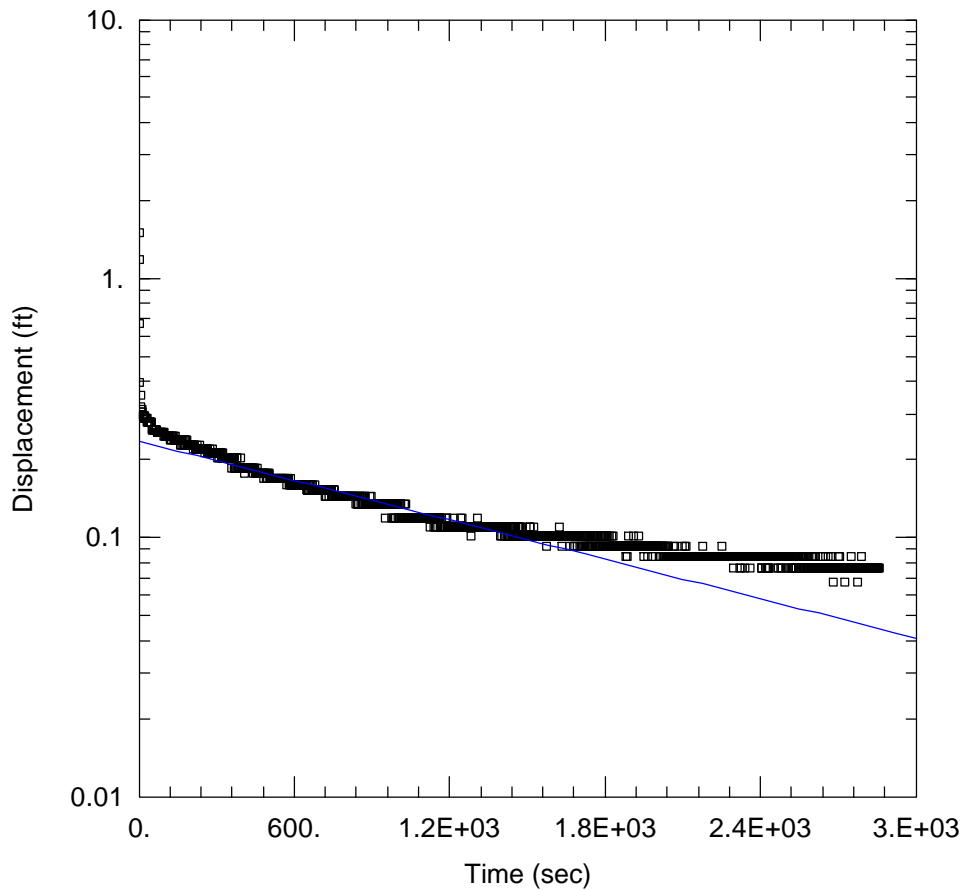
Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 1.41E-05 cm/sec

y0 = 0.4602 ft





MW-18 RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW-18\_4.aqt

Date: 07/13/09

Time: 10:56:02

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Test Location: 51 Hayes Place

Test Well: MW-18

Test Date: February 10, 2009

AQUIFER DATA

Saturated Thickness: 12. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18)

Initial Displacement: 1.5 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 3.8 ft

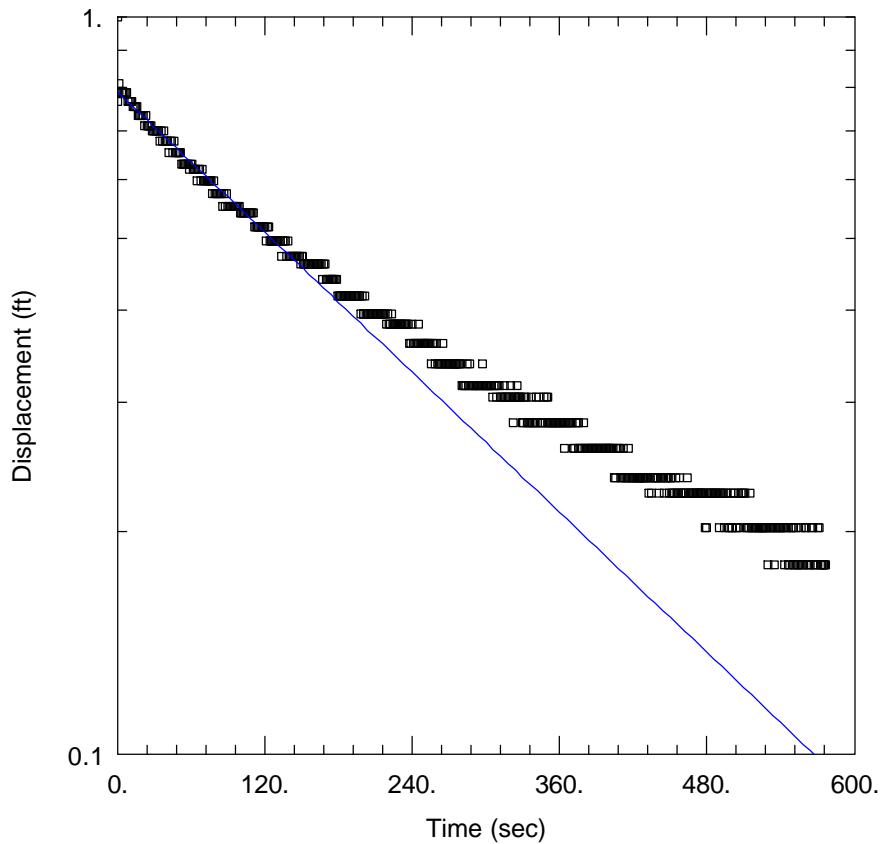
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 1.891E-05 cm/sec

y0 = 0.2356 ft



MW-18A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW18A\_A.aqt

Date: 07/09/09

Time: 13:15:29

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-18A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18A)

Initial Displacement: 1. ft

Static Water Column Height: 9.1 ft

Total Well Penetration Depth: 9.1 ft

Screen Length: 5. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

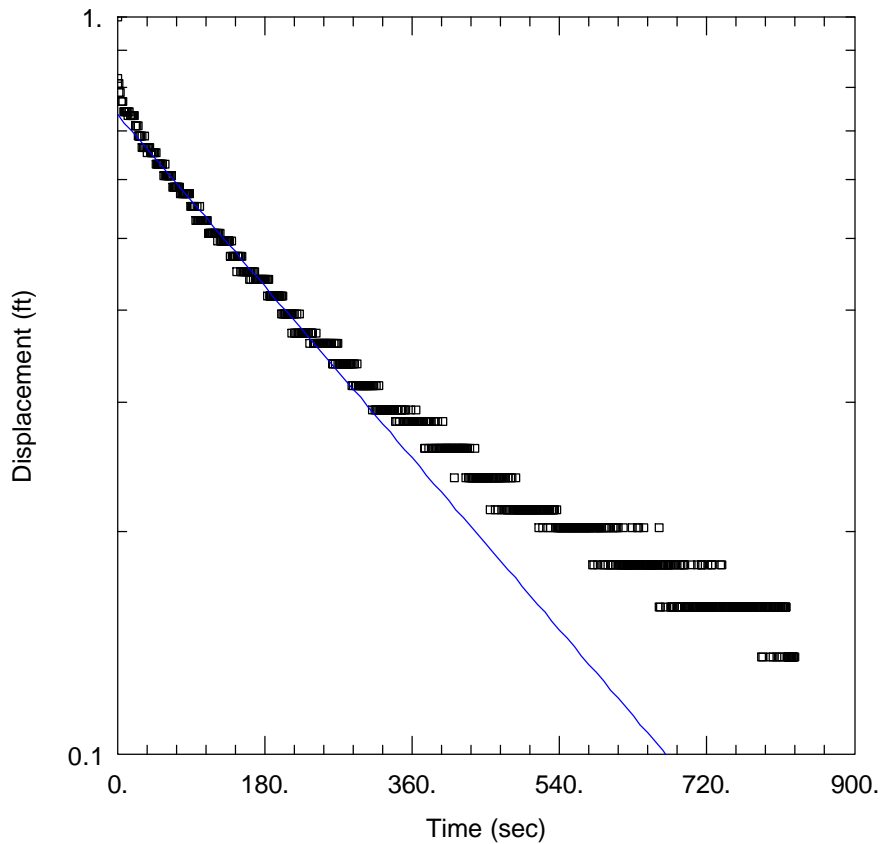
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0009098 cm/sec

y0 = 0.7903 ft



MW-18A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW18A\_B.aqt

Date: 07/09/09

Time: 13:16:29

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-18A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18A)

Initial Displacement: 1. ft

Static Water Column Height: 9.1 ft

Total Well Penetration Depth: 9.1 ft

Screen Length: 5. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

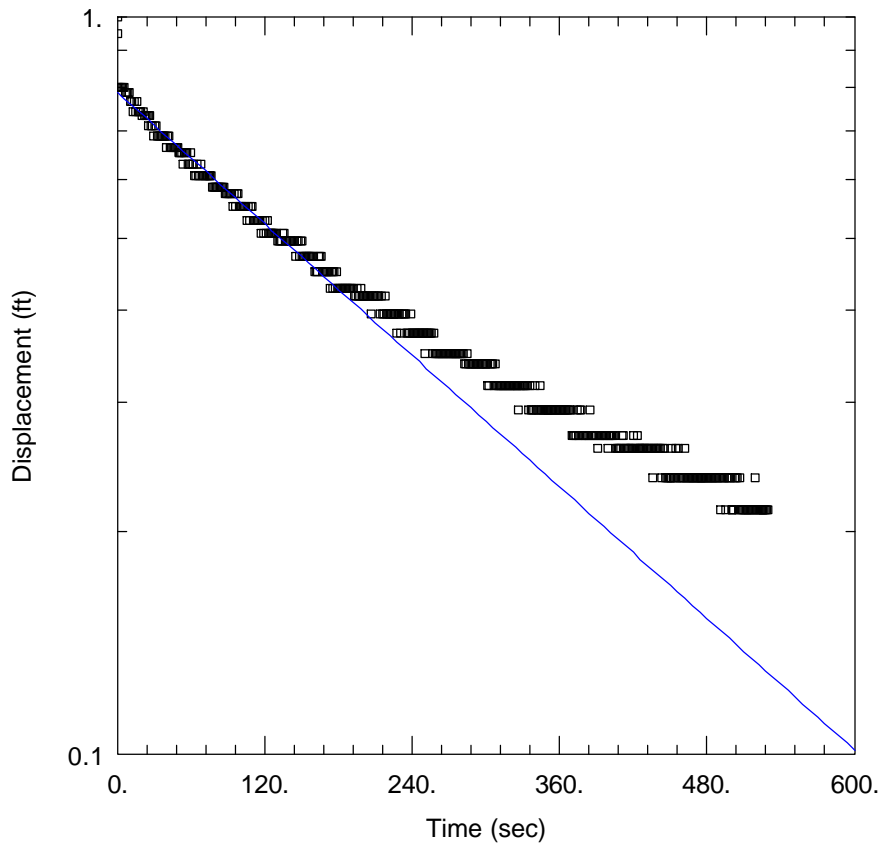
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0007438 cm/sec

y0 = 0.7368 ft



MW-18A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW18A\_C.aqt

Date: 07/09/09

Time: 13:17:31

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-18A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18A)

Initial Displacement: 1. ft

Static Water Column Height: 9.1 ft

Total Well Penetration Depth: 9.1 ft

Screen Length: 5. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

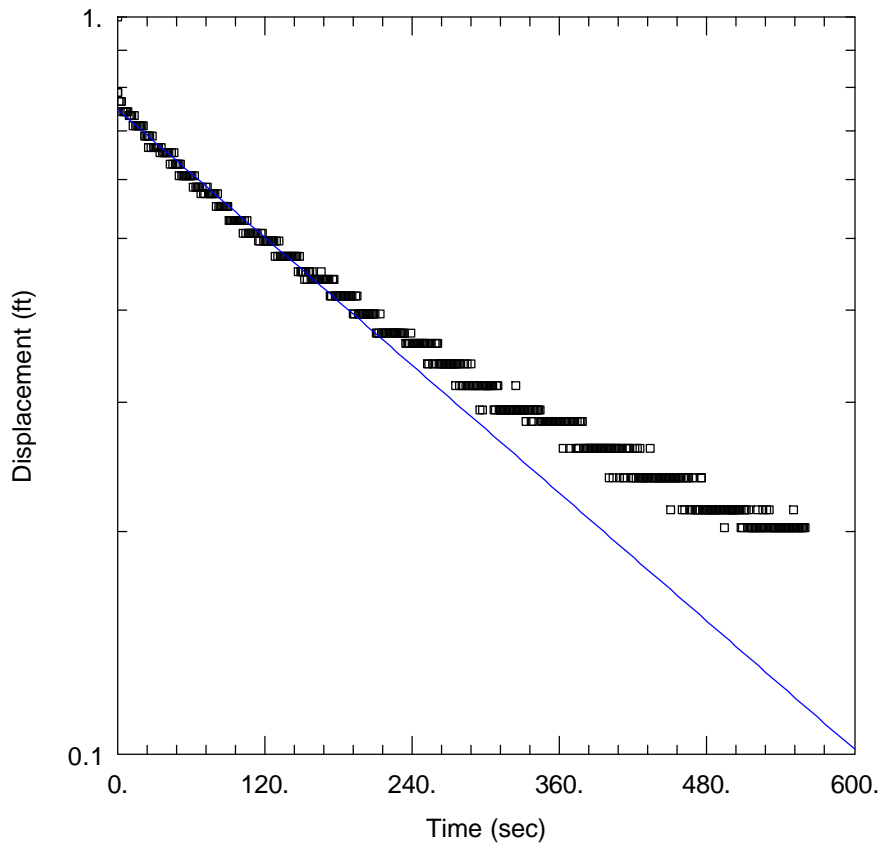
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.000854 cm/sec

y0 = 0.7893 ft



MW-18A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW18A\_D.aqt

Date: 07/09/09

Time: 13:18:32

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-18A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-18A)

Initial Displacement: 1. ft

Static Water Column Height: 9.1 ft

Total Well Penetration Depth: 9.1 ft

Screen Length: 5. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

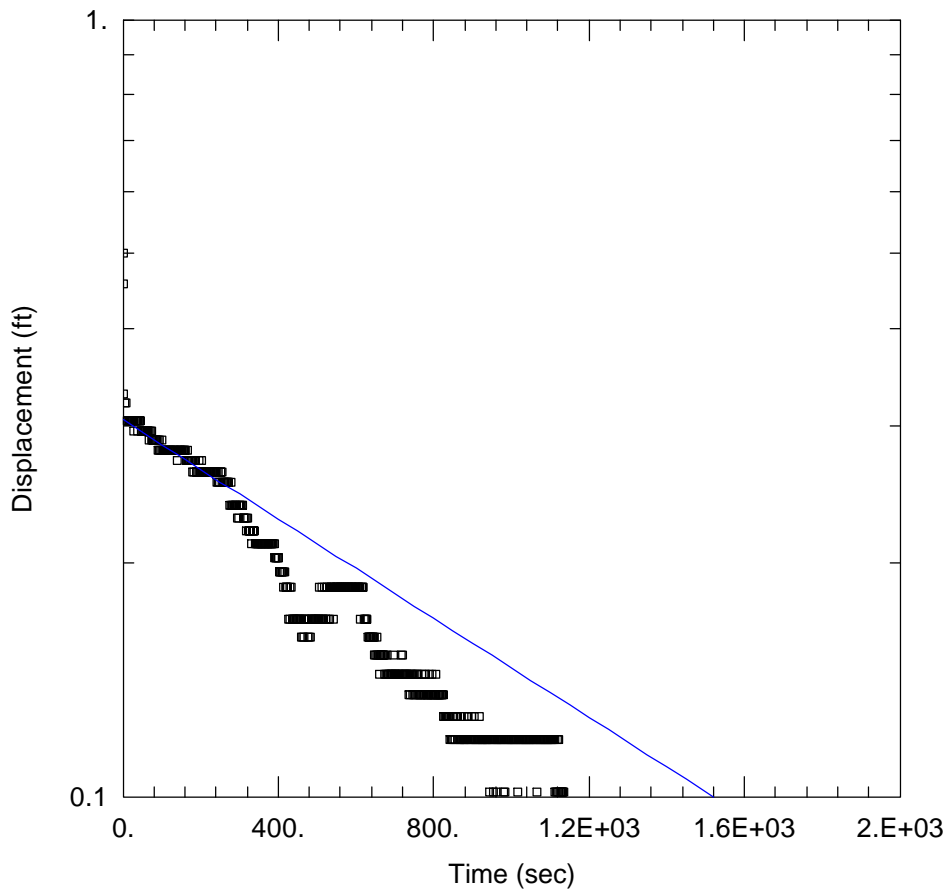
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0008307 cm/sec

y0 = 0.7489 ft



MW-19 FALLING HEAD TEST #1

Data Set: C:\Buffalo China\MW19\_A.aqt

Date: 10/06/09

Time: 10:38:04

PROJECT INFORMATION

Company: CRA

Client: Hodgson-Russ

Project: 37191

Test Location: Former Buffalo China Site

Test Well: MW-19

Test Date: August 5, 2009

AQUIFER DATA

Saturated Thickness: 5.9 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-19)

Initial Displacement: 0.5 ft

Casing Radius: 0.083 ft

Wellbore Radius: 0.33 ft

Well Skin Radius: 0.33 ft

Screen Length: 5. ft

Total Well Penetration Depth: 5.9 ft

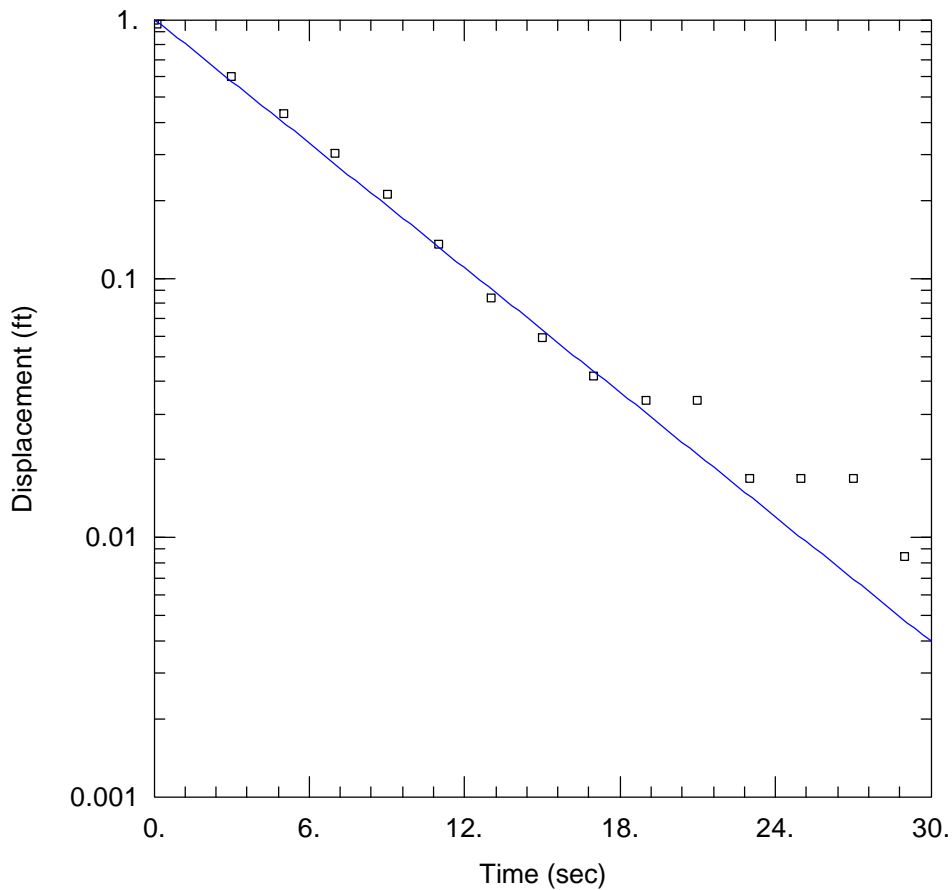
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 3.209E-05 cm/sec

y0 = 0.3053 ft



MW-19A FALLING HEAD TEST #1

Data Set: C:\Buffalo China\MW19A\_A.aqt

Date: 10/06/09

Time: 10:42:05

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-19A

Test Date: August 5, 2009

AQUIFER DATA

Saturated Thickness: 10.3 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-19A)

Initial Displacement: 1. ft

Static Water Column Height: 10.3 ft

Total Well Penetration Depth: 19.2 ft

Screen Length: 17. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

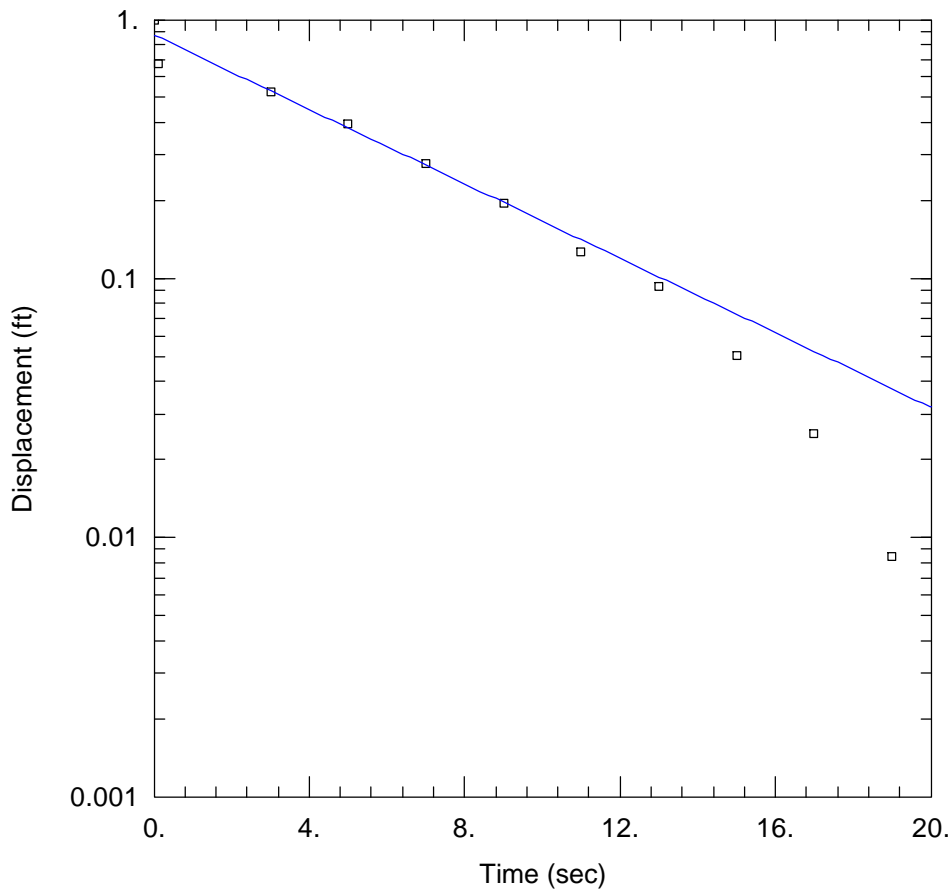
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.02706 cm/sec

y0 = 1.006 ft



MW-19A RISING HEAD TEST #1

Data Set: C:\Buffalo China\MW19A\_B.aqt

Date: 10/06/09

Time: 10:41:55

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-19A

Test Date: August 5, 2009

AQUIFER DATA

Saturated Thickness: 10.3 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-19A)

Initial Displacement: 1. ft

Static Water Column Height: 10.3 ft

Total Well Penetration Depth: 19.2 ft

Screen Length: 17. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

SOLUTION

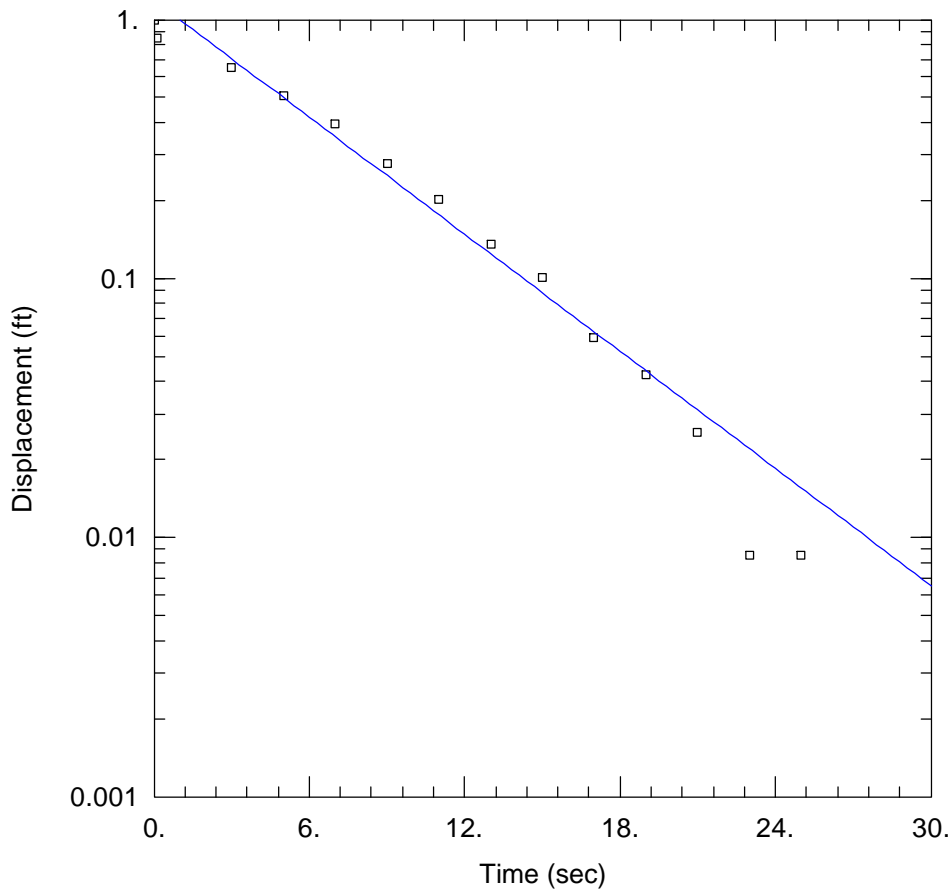
Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.02428 cm/sec

y0 = 0.8721 ft





MW-19A FALLING HEAD TEST #2

Data Set: C:\Buffalo China\MW19A\_C.aqt

Date: 10/06/09

Time: 10:41:38

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-19A

Test Date: August 5, 2009

AQUIFER DATA

Saturated Thickness: 10.3 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-19A)

Initial Displacement: 1. ft

Static Water Column Height: 10.3 ft

Total Well Penetration Depth: 19.2 ft

Screen Length: 17. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

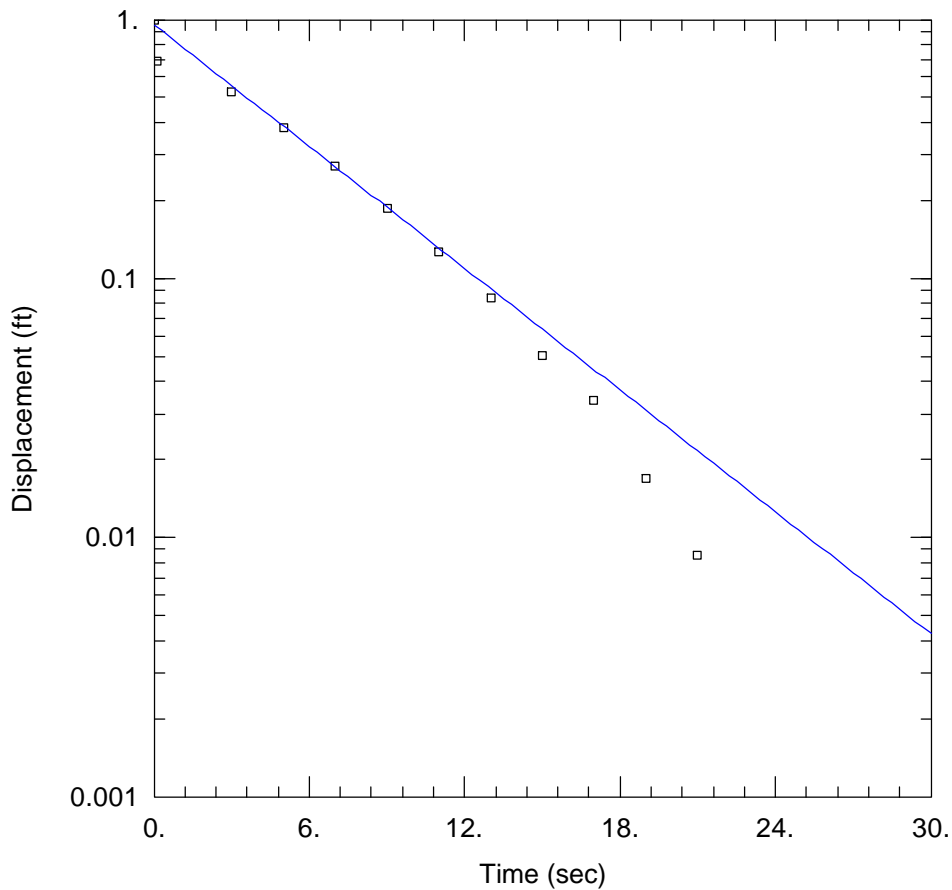
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.02545 cm/sec

y0 = 1.189 ft



MW-19A RISING HEAD TEST #2

Data Set: C:\Buffalo China\MW19A\_D.aqt

Date: 10/06/09

Time: 10:41:23

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-19A

Test Date: August 5, 2009

AQUIFER DATA

Saturated Thickness: 10.3 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-19A)

Initial Displacement: 1. ft

Static Water Column Height: 10.3 ft

Total Well Penetration Depth: 19.2 ft

Screen Length: 17. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

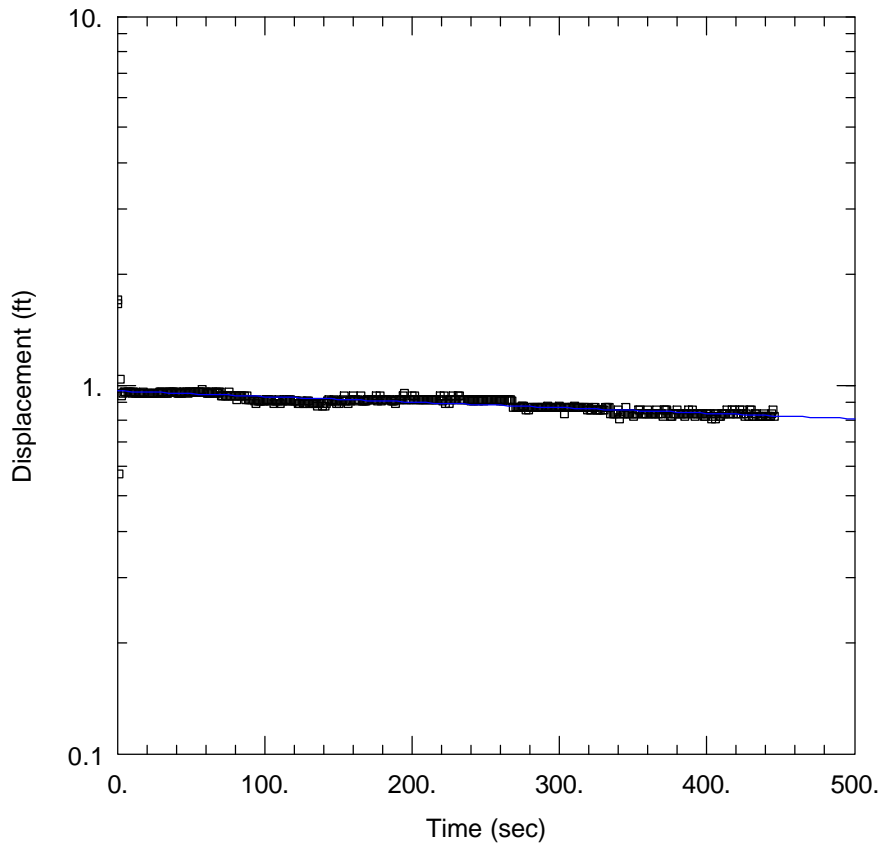
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.02647 cm/sec

y0 = 0.9553 ft



MW-20 FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW20\_A.aqt

Date: 07/09/09

Time: 13:22:16

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-20

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 6.6 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-20)

Initial Displacement: 1.7 ft

Static Water Column Height: 6.6 ft

Total Well Penetration Depth: 6.6 ft

Screen Length: 5. ft

Casing Radius: 0.083 ft

Well Radius: 0.33 ft

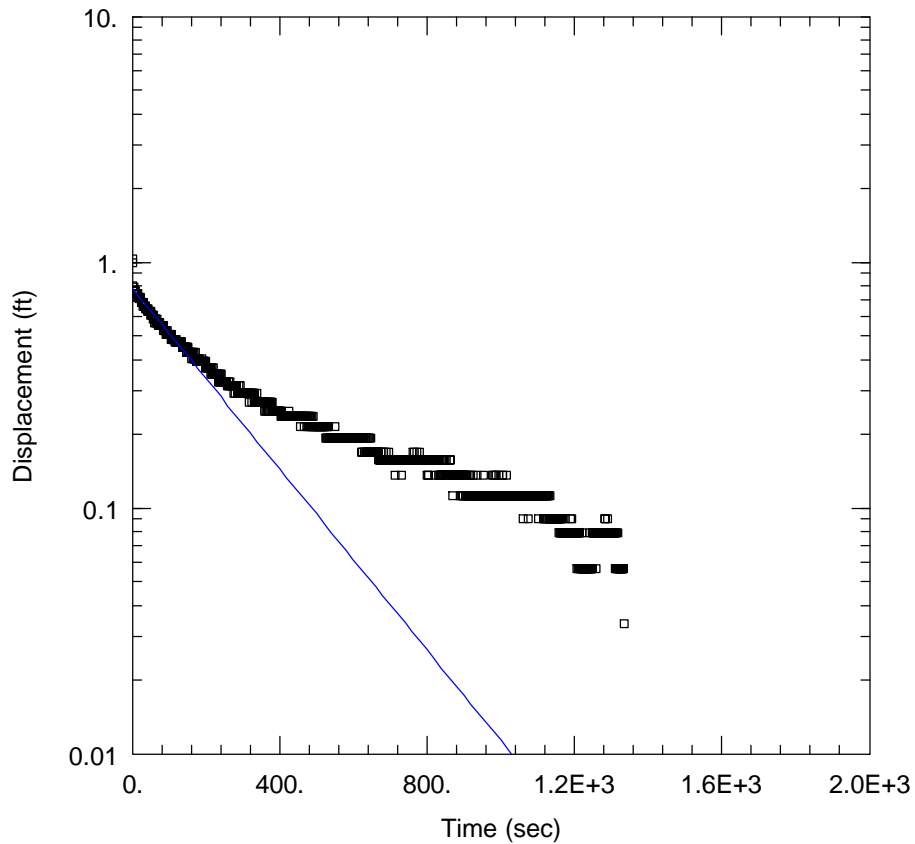
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 1.564E-5 cm/sec

y0 = 0.9634 ft



MW-20A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW20A\_A.aqt

Date: 07/09/09

Time: 09:51:04

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-20A

Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 16.6 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-20A)

Initial Displacement: 1. ft

Static Water Column Height: 16.6 ft

Total Well Penetration Depth: 16.6 ft

Screen Length: 9.4 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

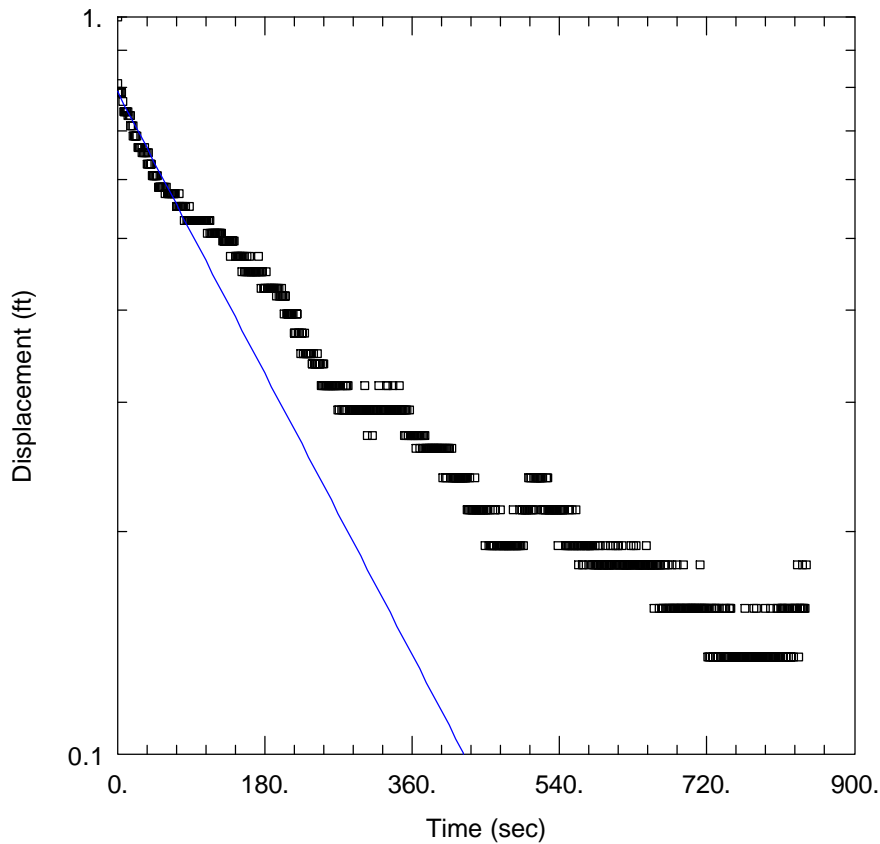
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0006611 cm/sec

y0 = 0.7855 ft



MW-20A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW20A\_B.aqt

Date: 07/09/09

Time: 09:52:11

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-20A

Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 16.6 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-20A)

Initial Displacement: 1. ft

Static Water Column Height: 16.6 ft

Total Well Penetration Depth: 16.6 ft

Screen Length: 9.4 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

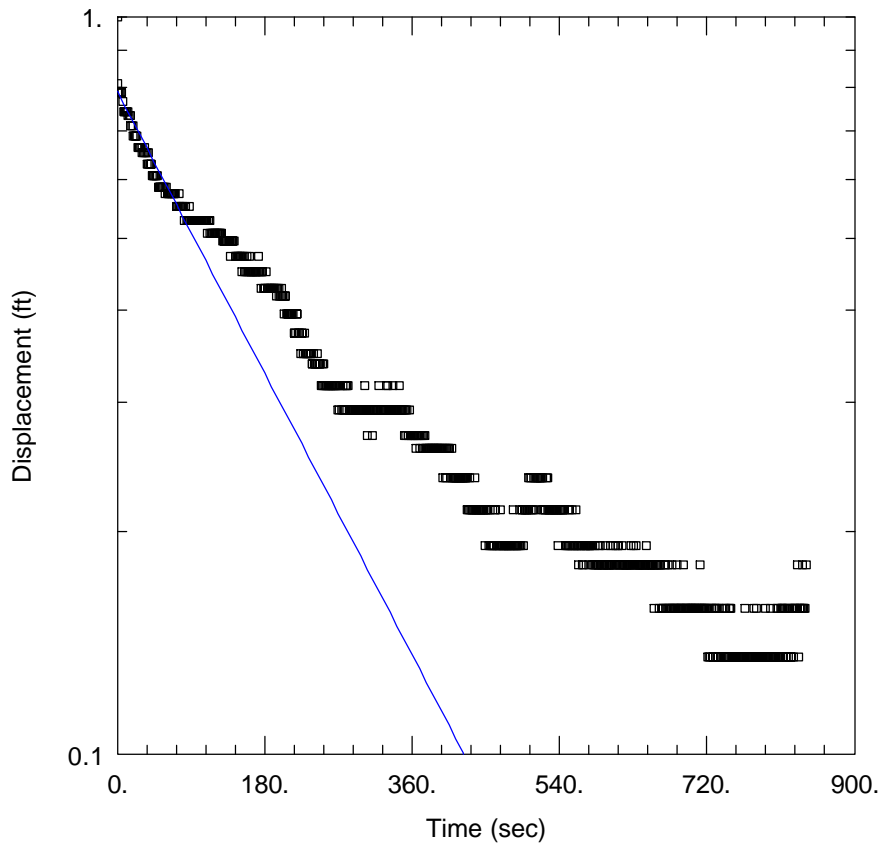
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0007617 cm/sec

y0 = 0.7905 ft



MW-20A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW20A\_B.aqt

Date: 07/09/09

Time: 09:52:11

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-20A

Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 16.6 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-20A)

Initial Displacement: 1. ft

Static Water Column Height: 16.6 ft

Total Well Penetration Depth: 16.6 ft

Screen Length: 9.4 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

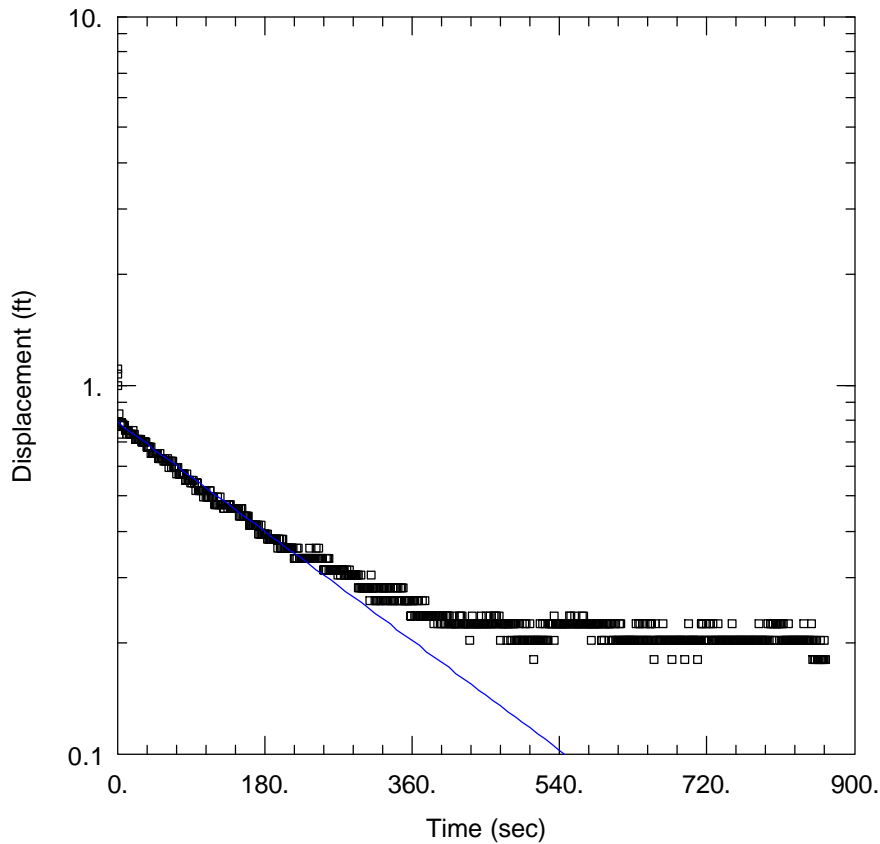
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0007617 cm/sec

y0 = 0.7905 ft



MW-20A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW20A\_C.aqt

Date: 07/09/09

Time: 09:53:22

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-20A

Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 16.6 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-20A)

Initial Displacement: 1. ft

Static Water Column Height: 16.6 ft

Total Well Penetration Depth: 16.6 ft

Screen Length: 9.4 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

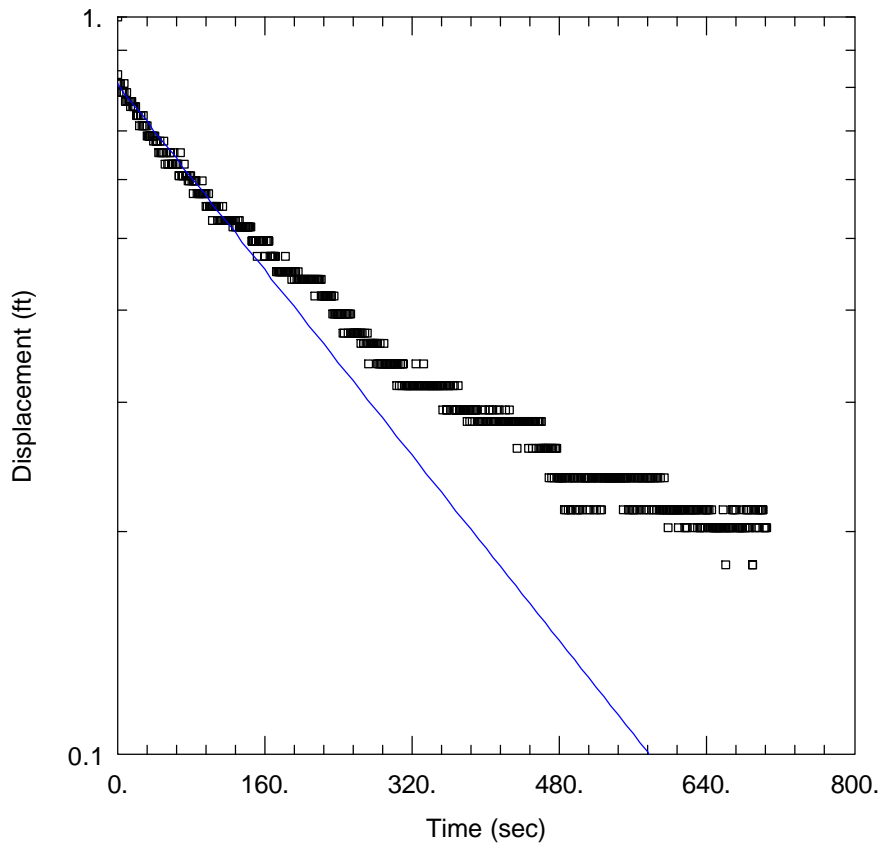
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0005915 cm/sec

y0 = 0.7943 ft



MW-20A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW20A\_D.aqt

Date: 07/09/09

Time: 09:54:27

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-20A

Test Date: June 29, 2009

AQUIFER DATA

Saturated Thickness: 16.6 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-20A)

Initial Displacement: 1. ft

Static Water Column Height: 16.6 ft

Total Well Penetration Depth: 16.6 ft

Screen Length: 9.4 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

SOLUTION

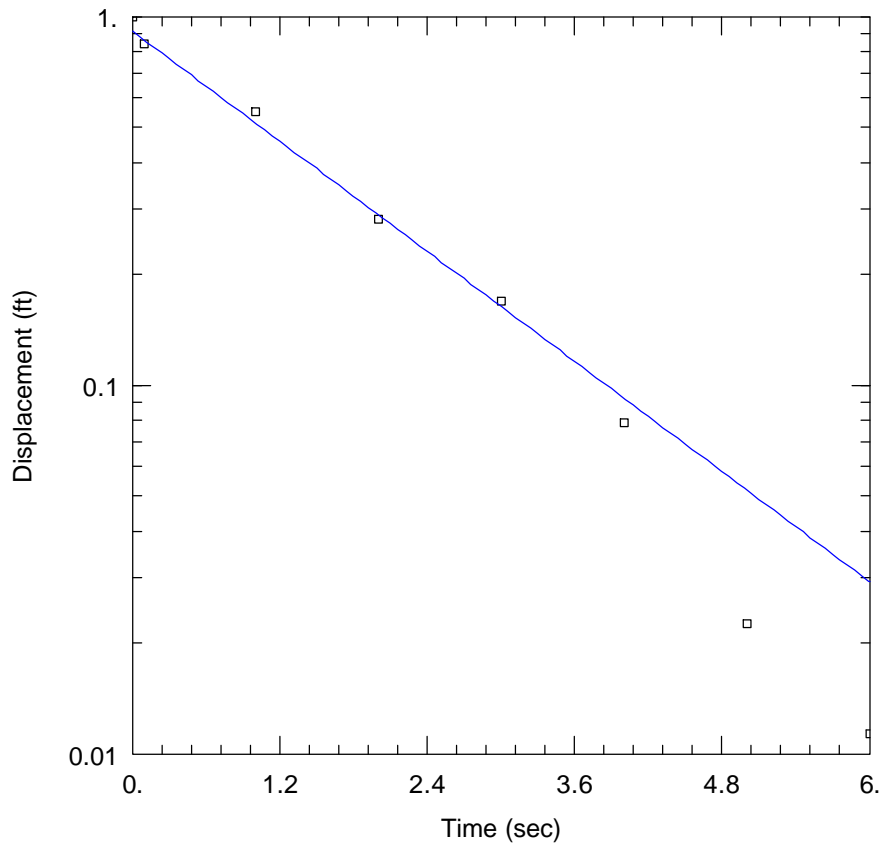
Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0005651 cm/sec

y0 = 0.8097 ft





MW-21A FALLING HEAD TEST #1

Data Set: C:\Buffalo China\MW21A\_A.aqt

Date: 07/09/09

Time: 09:05:04

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-21A

Test Date: June 24, 2009

AQUIFER DATA

Saturated Thickness: 14.4 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-21A)

Initial Displacement: 1. ft

Static Water Column Height: 14.4 ft

Total Well Penetration Depth: 15.5 ft

Screen Length: 15.5 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

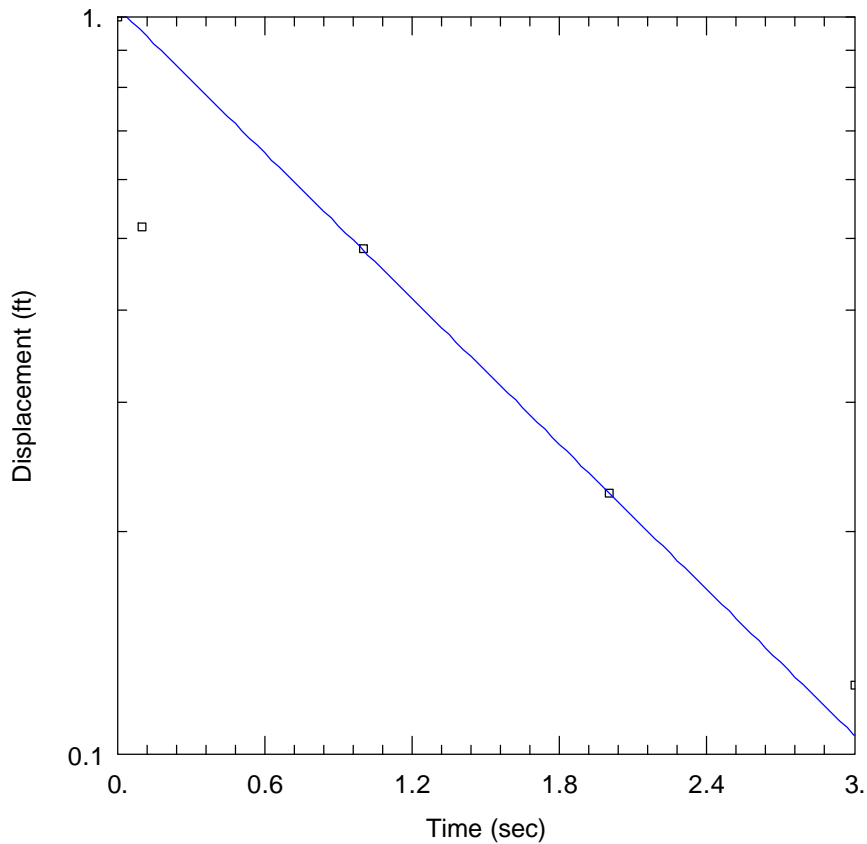
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.05877 cm/sec

y0 = 0.9127 ft



MW-21A RISING HEAD TEST #1

Data Set: C:\Buffalo China\MW21A\_B.aqt

Date: 07/09/09

Time: 09:15:43

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-21A

Test Date: June 24, 2009

AQUIFER DATA

Saturated Thickness: 14.4 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-21A)

Initial Displacement: 1. ft

Static Water Column Height: 14.4 ft

Total Well Penetration Depth: 15.5 ft

Screen Length: 15.5 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

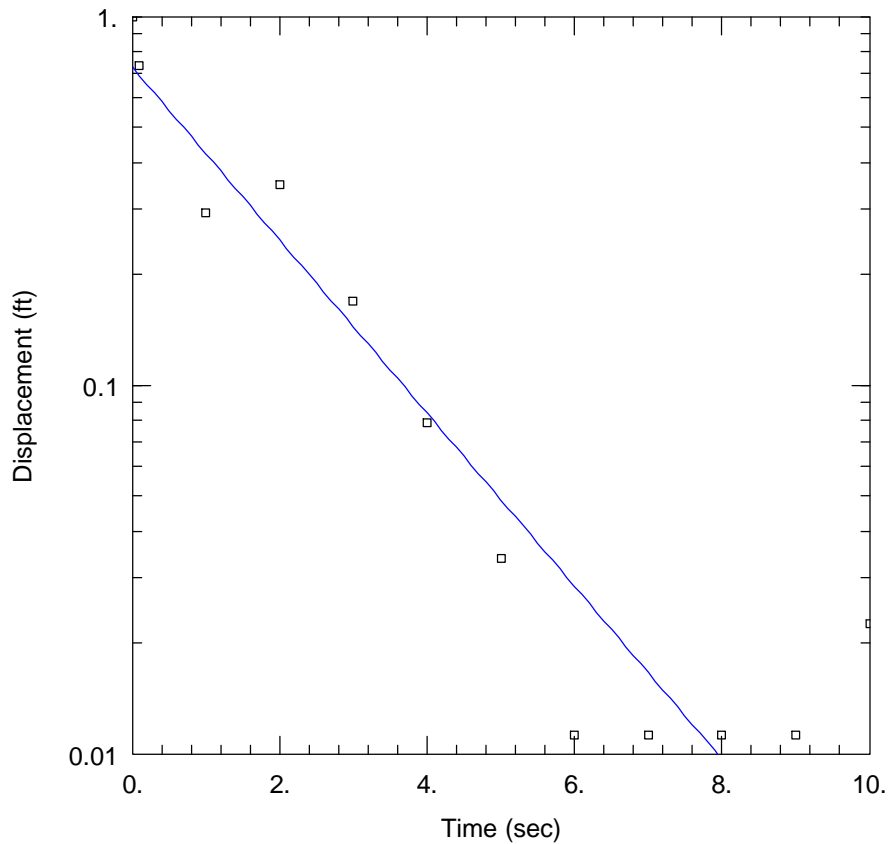
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.07773 cm/sec

y0 = 1.029 ft



MW-21A FALLING HEAD TEST #2

Data Set: C:\Buffalo China\MW21A\_C.aqt

Date: 07/09/09

Time: 09:17:53

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-21A

Test Date: June 24, 2009

AQUIFER DATA

Saturated Thickness: 14.4 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-21A)

Initial Displacement: 1. ft

Static Water Column Height: 14.4 ft

Total Well Penetration Depth: 15.5 ft

Screen Length: 15.5 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

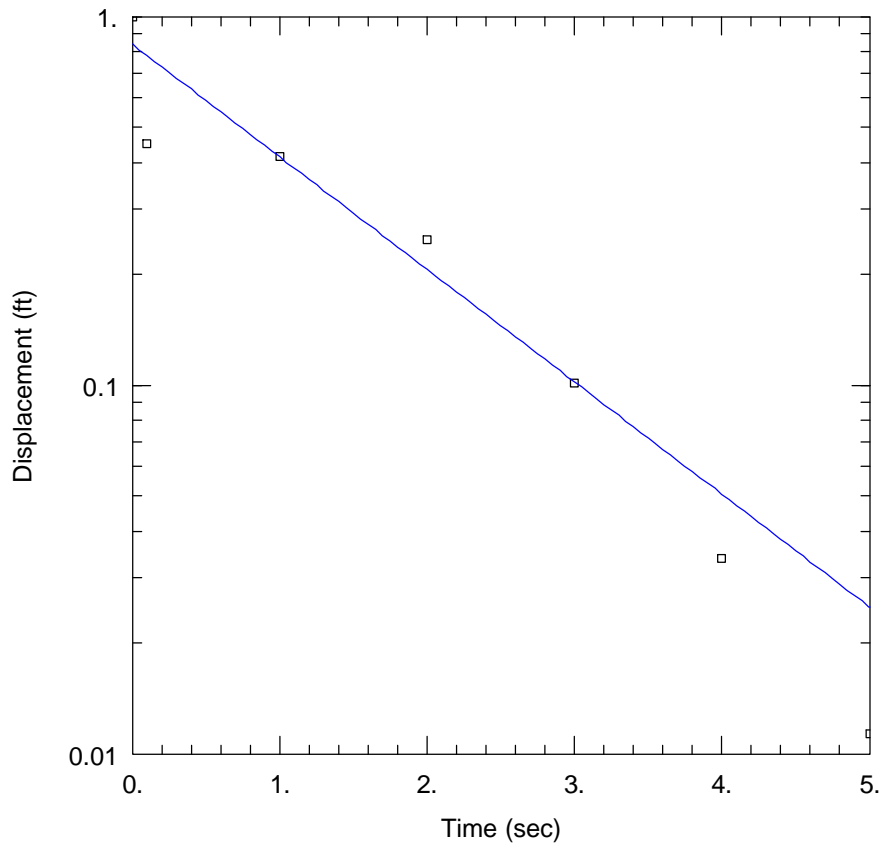
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.05541 cm/sec

y0 = 0.7289 ft



MW-21A RISING HEAD TEST #2

Data Set: C:\Buffalo China\MW21A\_D.aqt

Date: 07/09/09

Time: 09:19:52

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-21A

Test Date: June 24, 2009

AQUIFER DATA

Saturated Thickness: 14.4 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-21A)

Initial Displacement: 1. ft

Static Water Column Height: 14.4 ft

Total Well Penetration Depth: 15.5 ft

Screen Length: 15.5 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

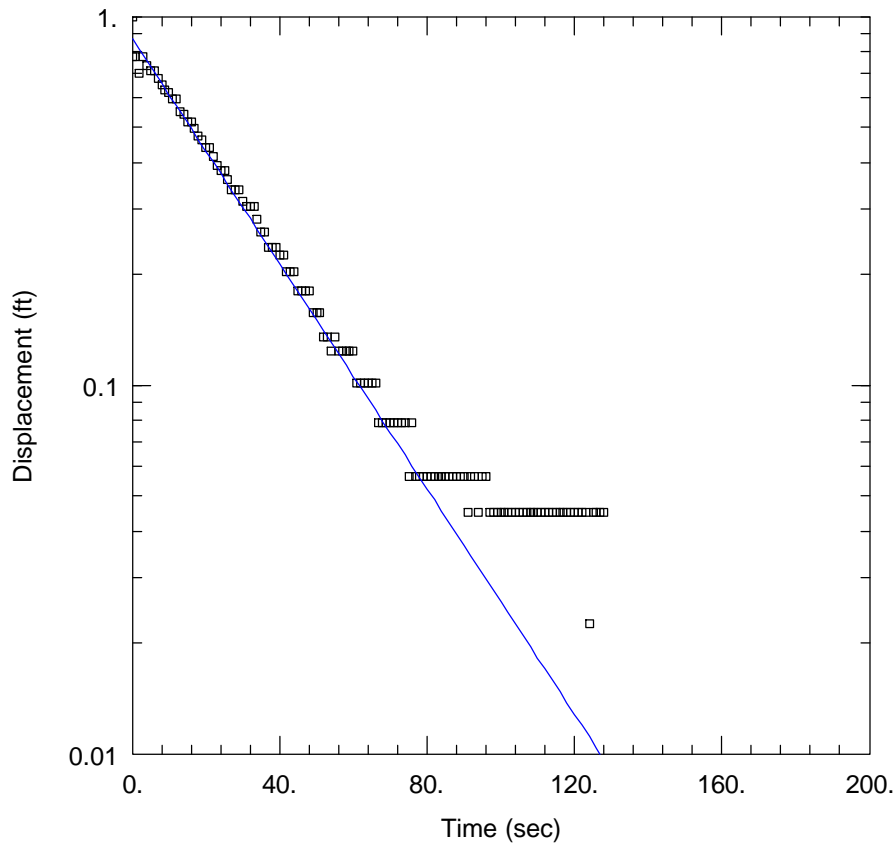
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.07205 cm/sec

y0 = 0.8398 ft



MW-22A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW22A\_A.aqt

Date: 07/09/09

Time: 11:20:13

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-22A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 26.4 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-22A)

Initial Displacement: 1. ft

Static Water Column Height: 26.4 ft

Total Well Penetration Depth: 26.4 ft

Screen Length: 20.6 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

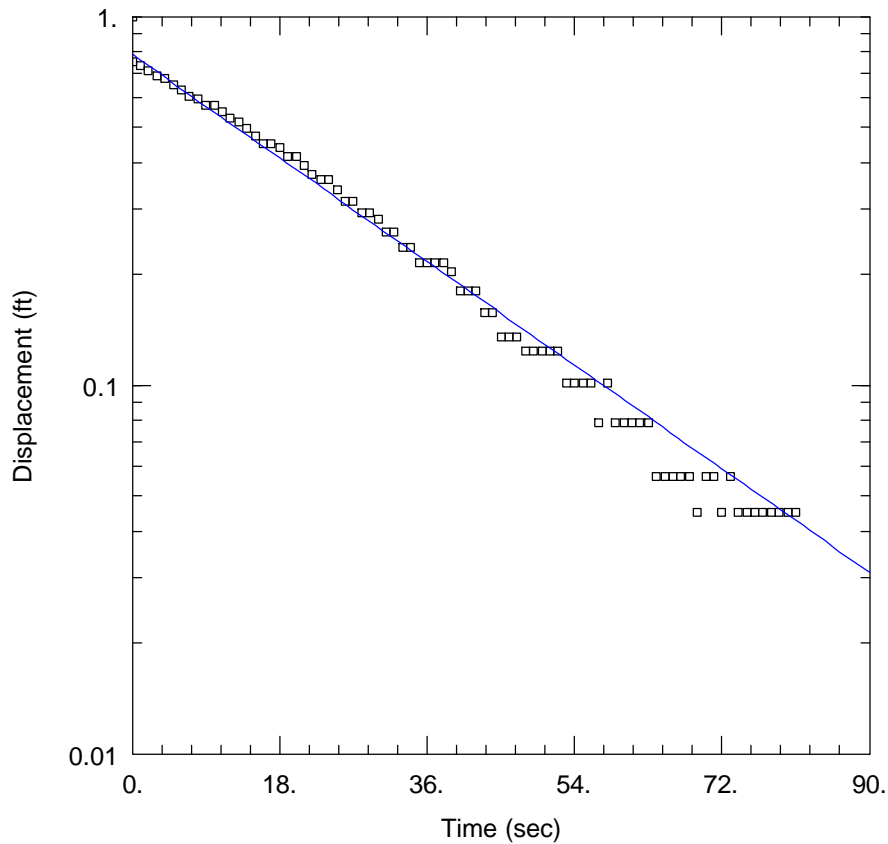
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.002813 cm/sec

y0 = 0.8717 ft



MW-22A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW22A\_B.aqt

Date: 07/09/09

Time: 11:21:46

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-22A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 26.4 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-22A)

Initial Displacement: 1. ft

Static Water Column Height: 26.4 ft

Total Well Penetration Depth: 26.4 ft

Screen Length: 20.6 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

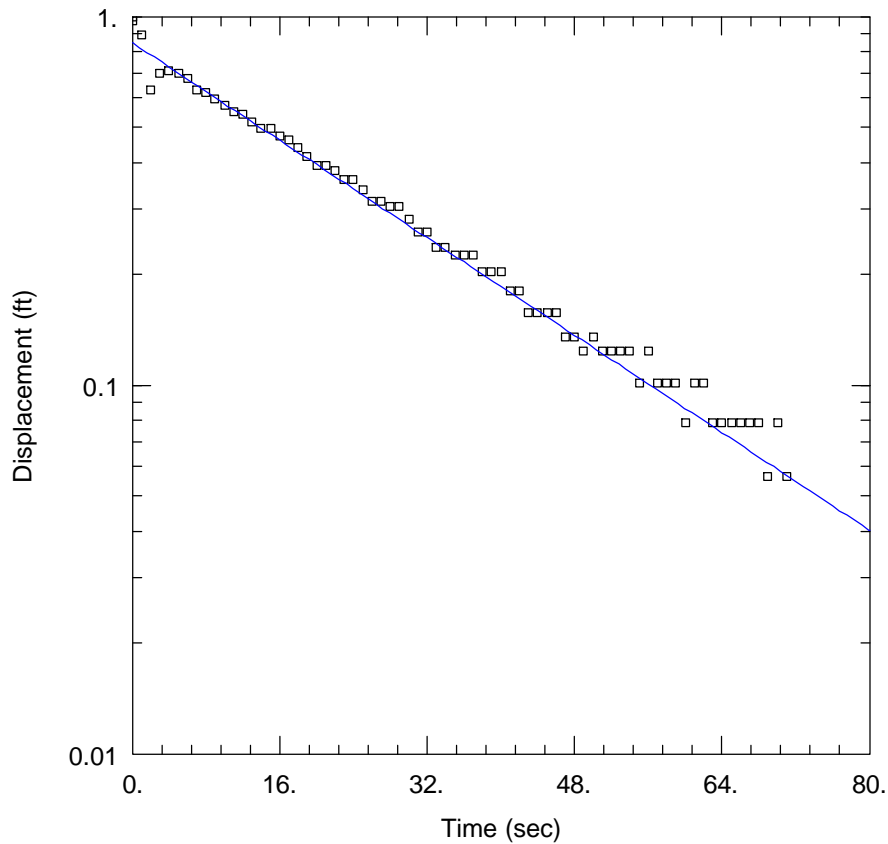
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.002873 cm/sec

y0 = 0.7884 ft



MW-22A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW22A\_C.aqt

Date: 07/09/09

Time: 11:22:46

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-22A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 26.4 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-22A)

Initial Displacement: 1. ft

Static Water Column Height: 26.4 ft

Total Well Penetration Depth: 26.4 ft

Screen Length: 20.6 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

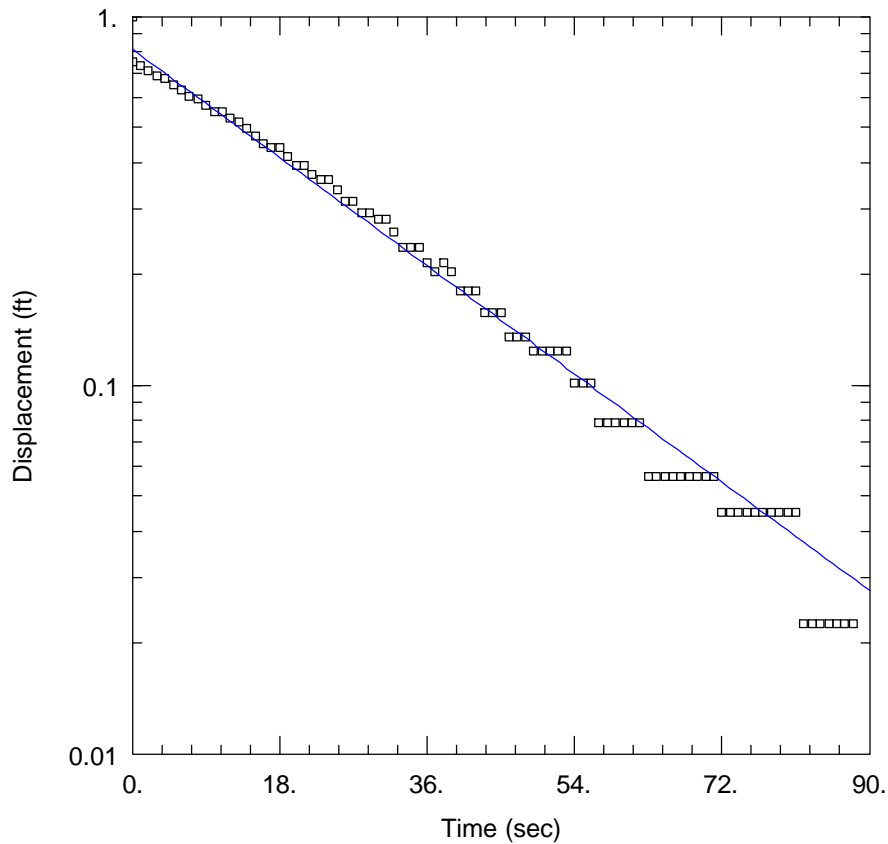
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.003043 cm/sec

y0 = 0.8484 ft



MW-22A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW22A\_D.aqt

Date: 07/09/09

Time: 11:24:02

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-22A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 26.4 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-22A)

Initial Displacement: 1. ft

Static Water Column Height: 26.4 ft

Total Well Penetration Depth: 26.4 ft

Screen Length: 20.6 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

SOLUTION

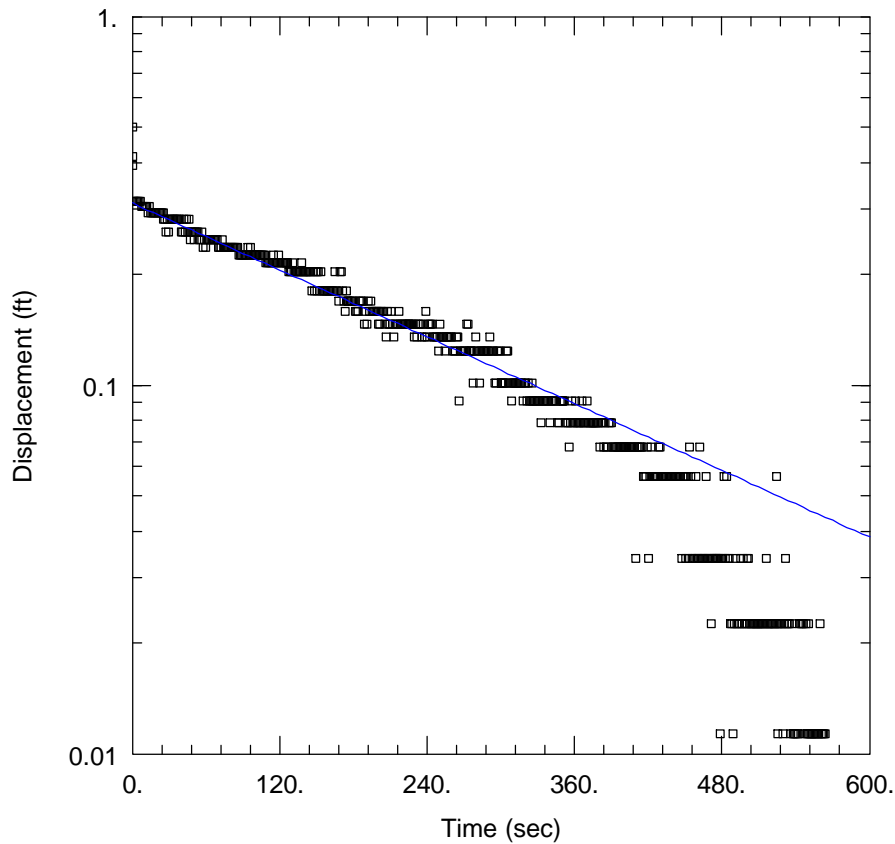
Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.003003 cm/sec

y0 = 0.8145 ft





MW-23A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW23A\_A.aqt

Date: 07/09/09

Time: 11:27:05

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-23A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 20. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-23A)

Initial Displacement: 0.5 ft

Static Water Column Height: 20. ft

Total Well Penetration Depth: 20. ft

Screen Length: 18.8 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

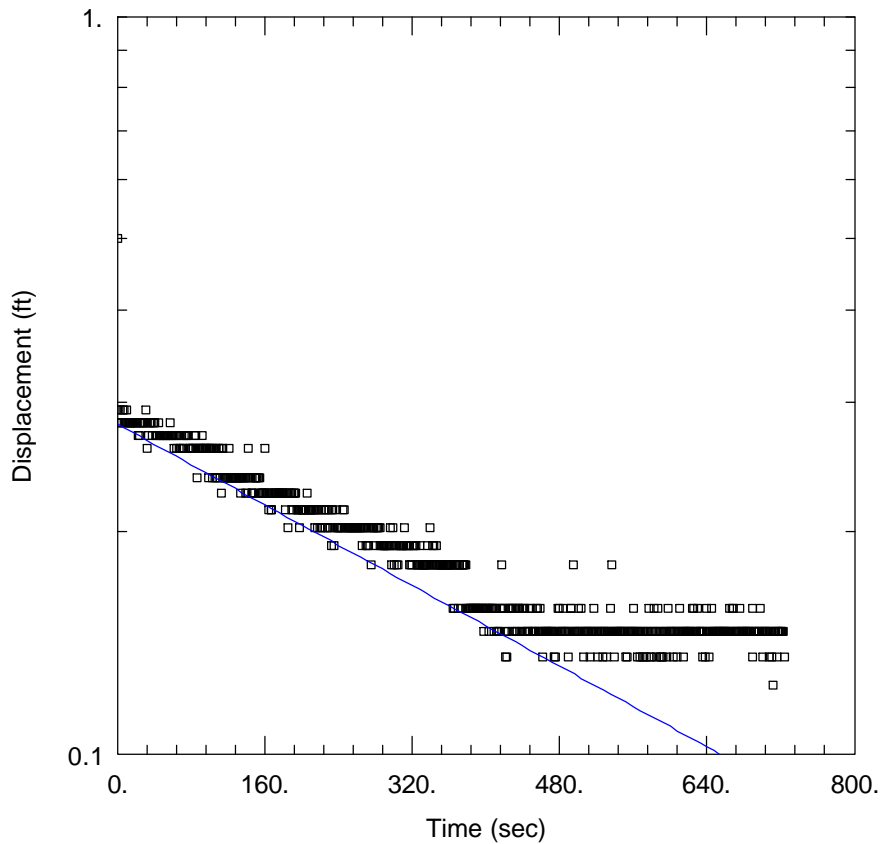
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0002894 cm/sec

y0 = 0.3116 ft



MW-23A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW23A\_B.aqt

Date: 07/09/09

Time: 11:28:19

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-23A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 20. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-23A)

Initial Displacement: 0.5 ft

Static Water Column Height: 20. ft

Total Well Penetration Depth: 20. ft

Screen Length: 18.8 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

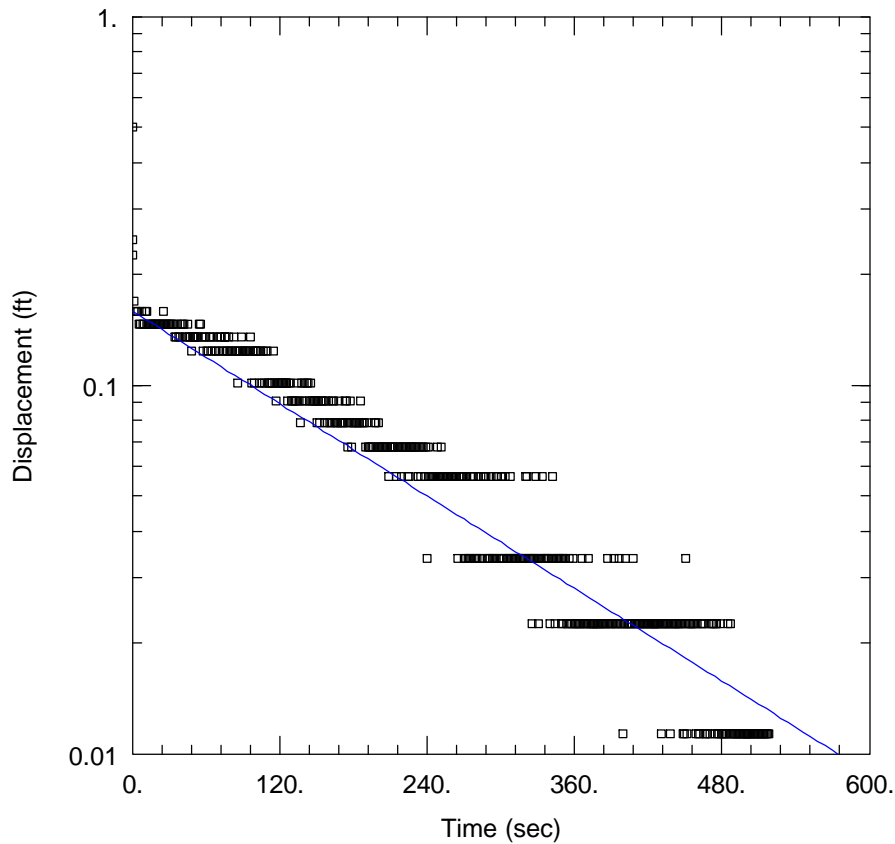
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.000131 cm/sec

y0 = 0.2799 ft



MW-23A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW23A\_C.aqt

Date: 07/09/09

Time: 11:29:26

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-23A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 20. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-23A)

Initial Displacement: 0.5 ft

Static Water Column Height: 20. ft

Total Well Penetration Depth: 20. ft

Screen Length: 18.8 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

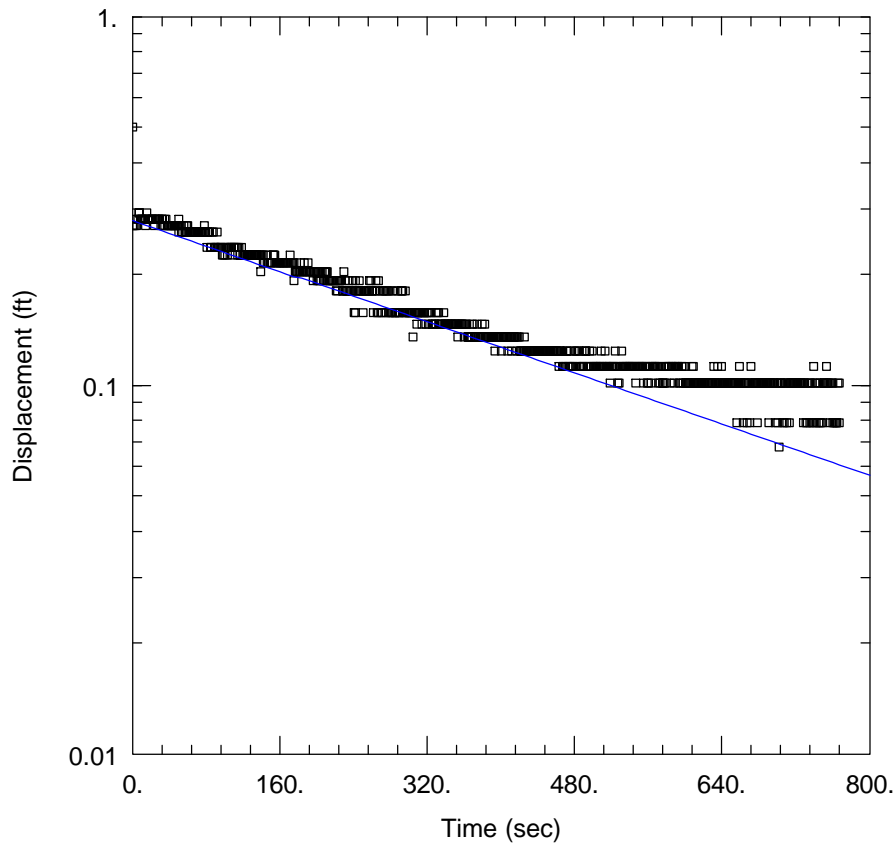
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0004007 cm/sec

y0 = 0.1589 ft



MW-23A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW23A\_D.aqt

Date: 07/09/09

Time: 11:30:23

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-23A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 20. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-23A)

Initial Displacement: 0.5 ft

Static Water Column Height: 20. ft

Total Well Penetration Depth: 20. ft

Screen Length: 18.8 ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

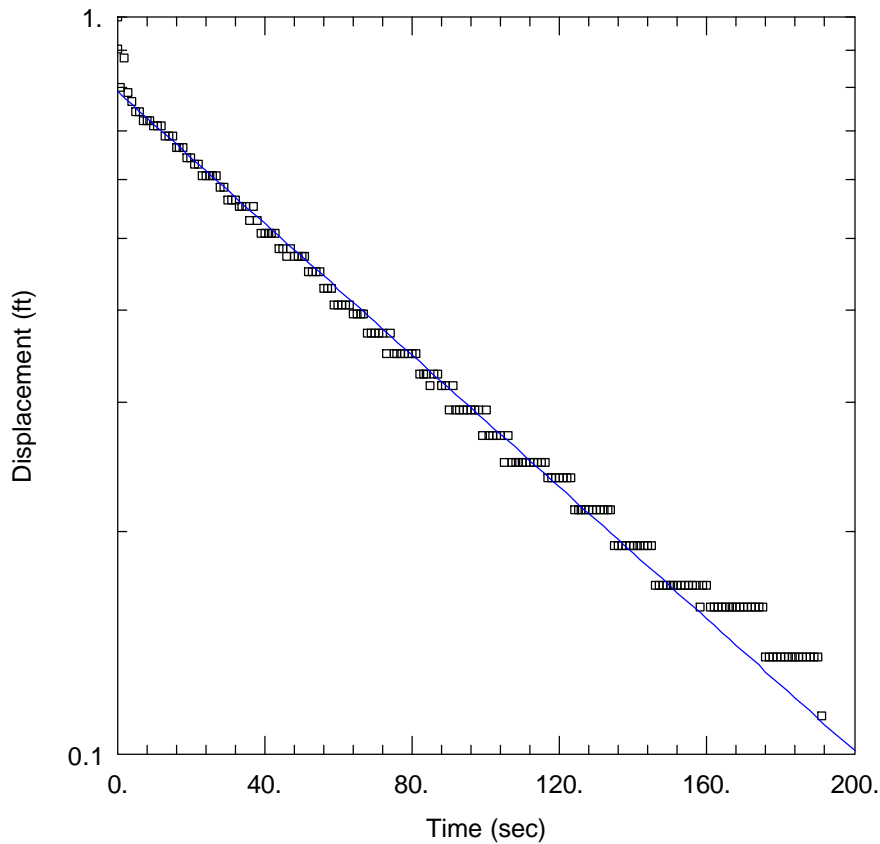
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.0001656 cm/sec

y0 = 0.2801 ft



MW-24A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW24A\_A.aqt

Date: 07/09/09

Time: 10:00:01

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-24A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-24A)

Initial Displacement: 1. ft

Static Water Column Height: 9.1 ft

Total Well Penetration Depth: 9. ft

Screen Length: 6. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

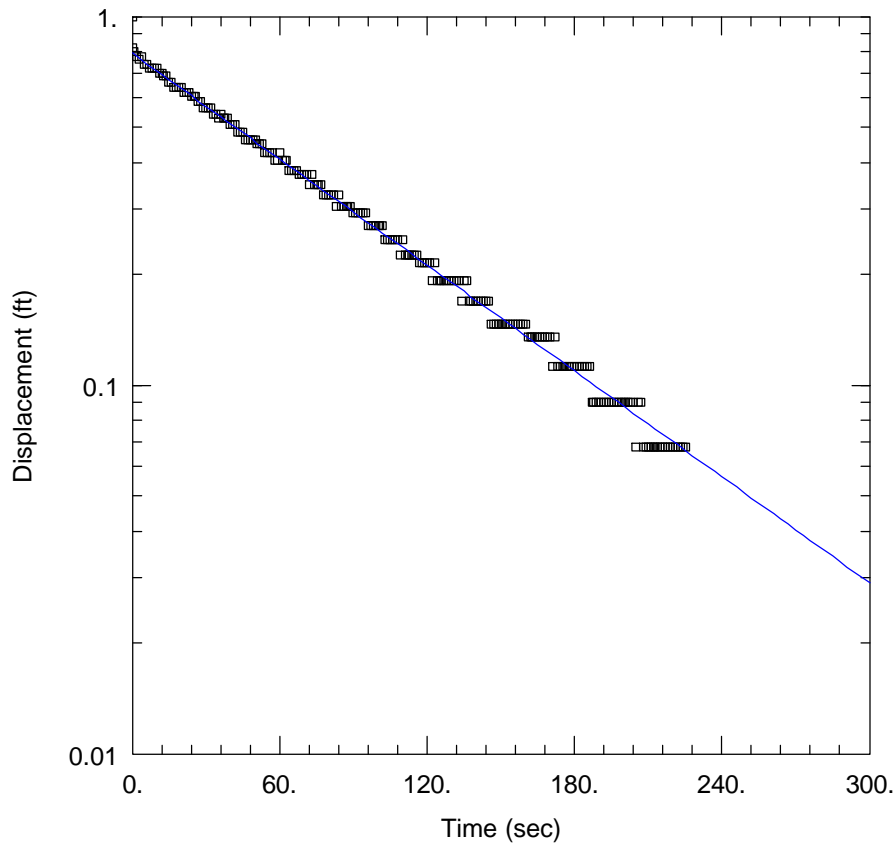
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.002127 cm/sec

y0 = 0.7913 ft



MW-24A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW24A\_B.aqt

Date: 07/09/09

Time: 10:00:53

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-24A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-24A)

Initial Displacement: 1. ft

Static Water Column Height: 9.1 ft

Total Well Penetration Depth: 9. ft

Screen Length: 6. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

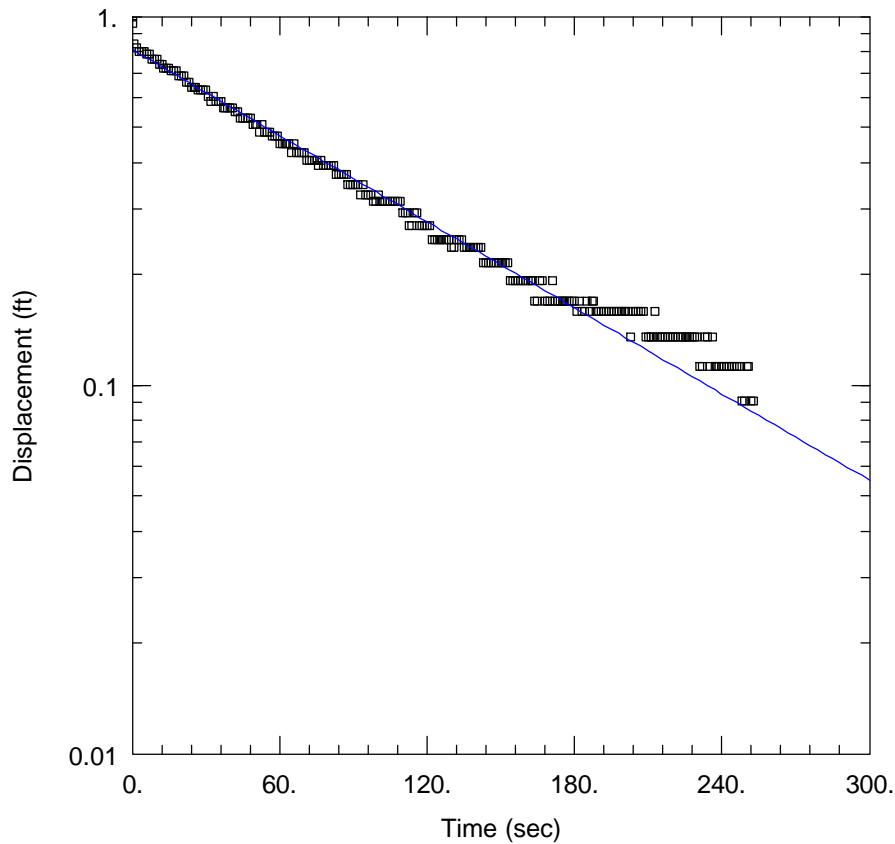
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.002277 cm/sec

y0 = 0.7944 ft



MW-24A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW24A\_C.aqt

Date: 07/09/09

Time: 10:01:53

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-24A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-24A)

Initial Displacement: 1. ft

Static Water Column Height: 9.1 ft

Total Well Penetration Depth: 9. ft

Screen Length: 6. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

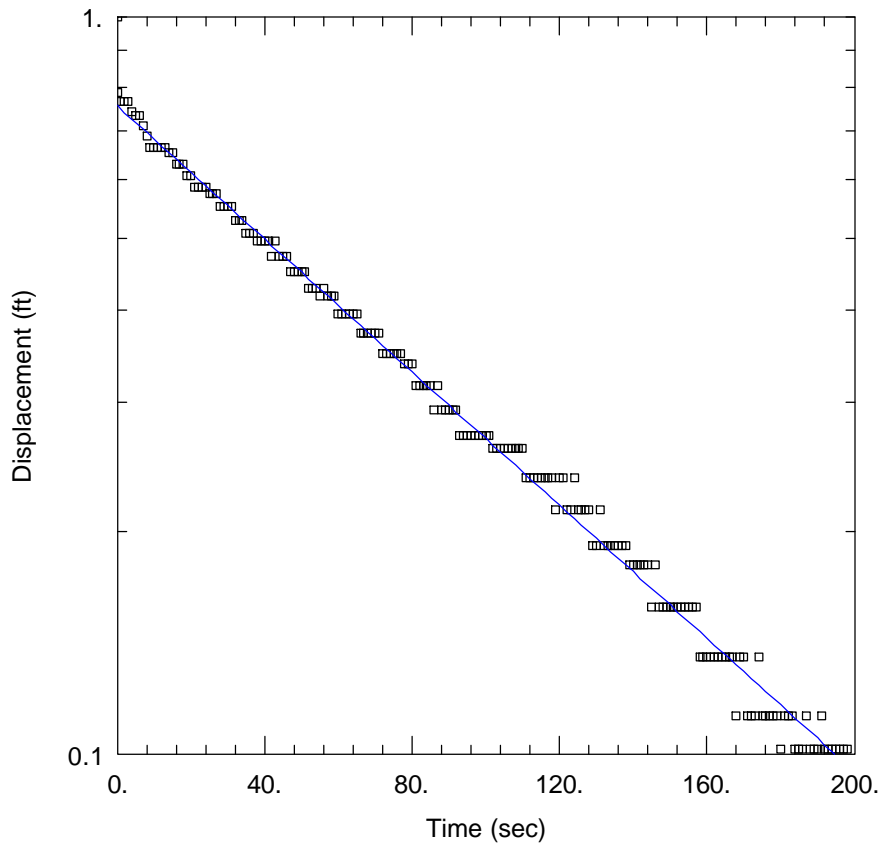
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.001853 cm/sec

y0 = 0.8141 ft



MW-24A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW24A\_D.aqt

Date: 07/09/09

Time: 10:03:12

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-24A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 9.1 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-24A)

Initial Displacement: 1. ft

Static Water Column Height: 9.1 ft

Total Well Penetration Depth: 9. ft

Screen Length: 6. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

SOLUTION

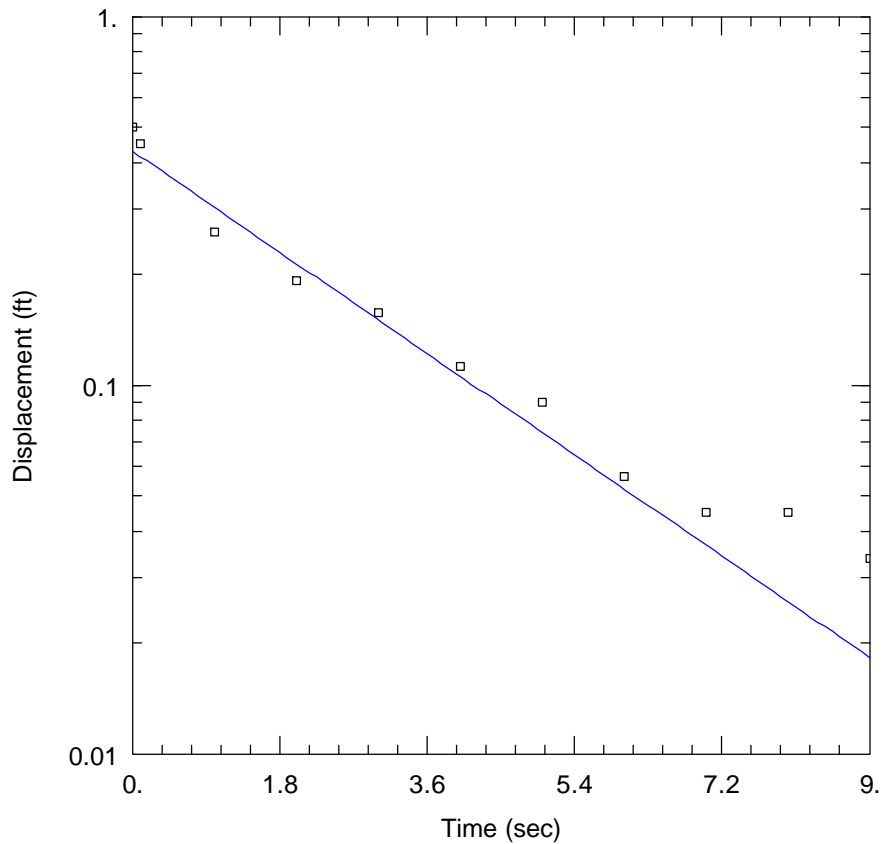
Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.002147 cm/sec

y0 = 0.756 ft





MW-25A FALLING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW25A\_A.aqt

Date: 07/09/09

Time: 11:04:53

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-25A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 7.2 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-25A)

Initial Displacement: 0.5 ft

Static Water Column Height: 7.2 ft

Total Well Penetration Depth: 7.2 ft

Screen Length: 5. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

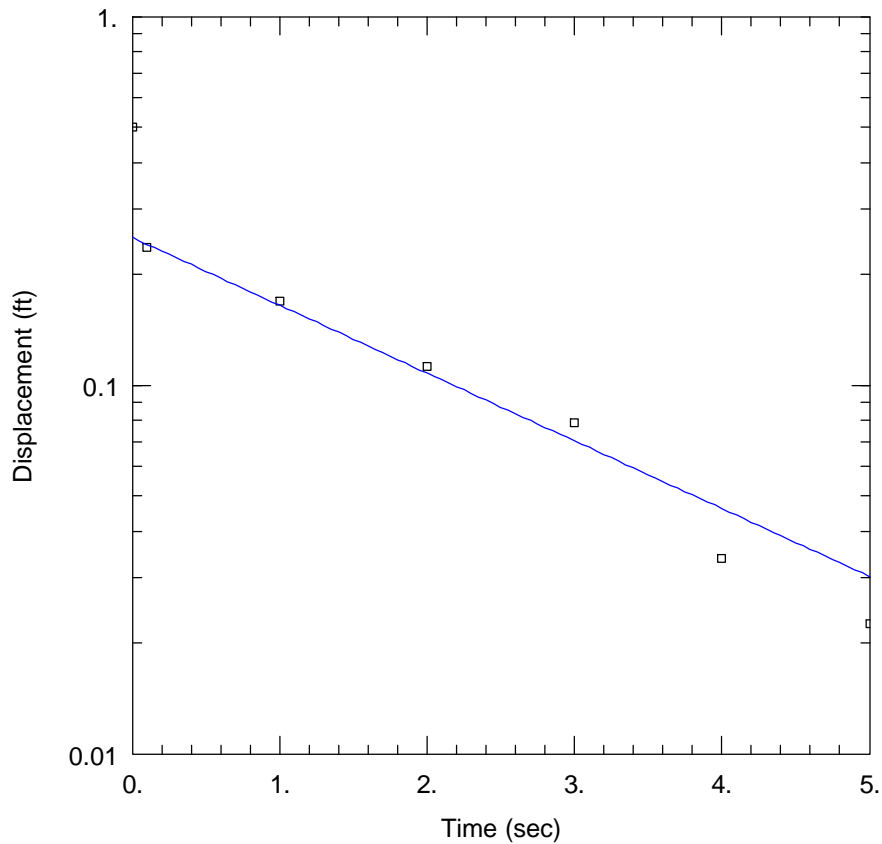
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.08347 cm/sec

y0 = 0.4317 ft



MW-25A RISING HEAD SLUG TEST #1

Data Set: C:\Buffalo China\MW25A\_B.aqt

Date: 07/09/09

Time: 11:06:13

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-25A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 7.2 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-25A)

Initial Displacement: 0.5 ft

Static Water Column Height: 7.2 ft

Total Well Penetration Depth: 7.2 ft

Screen Length: 5. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

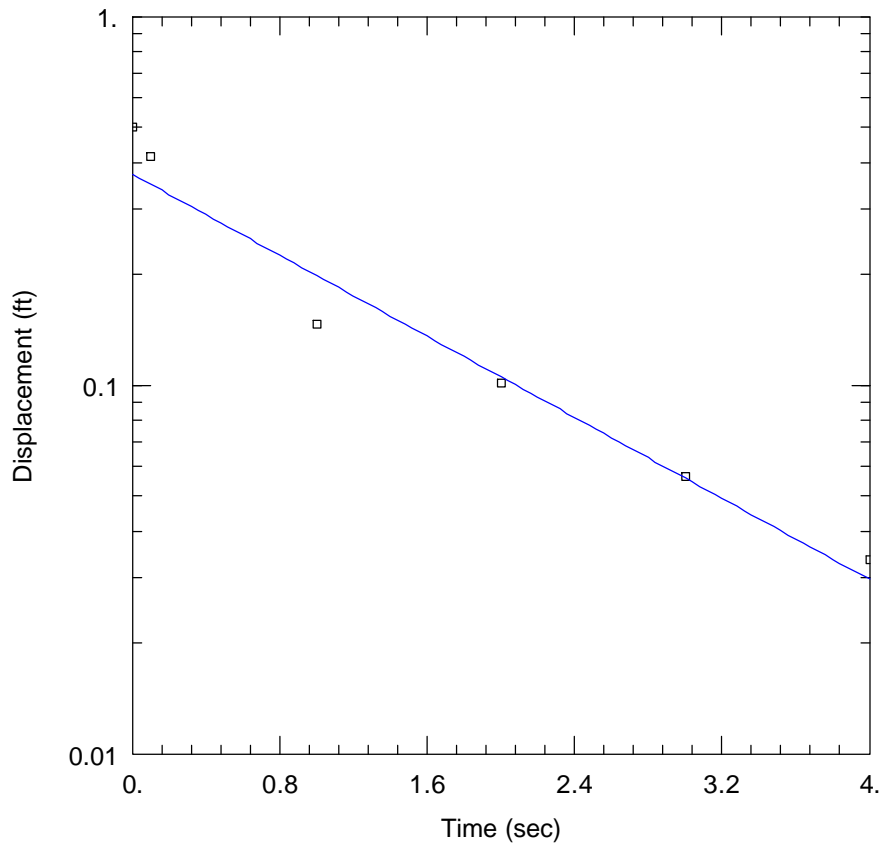
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.1006 cm/sec

y0 = 0.2513 ft



MW-25A FALLING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW25A\_C.aqt

Date: 07/09/09

Time: 11:08:02

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-25A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 7.2 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-25A)

Initial Displacement: 0.5 ft

Static Water Column Height: 7.2 ft

Total Well Penetration Depth: 7.2 ft

Screen Length: 5. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

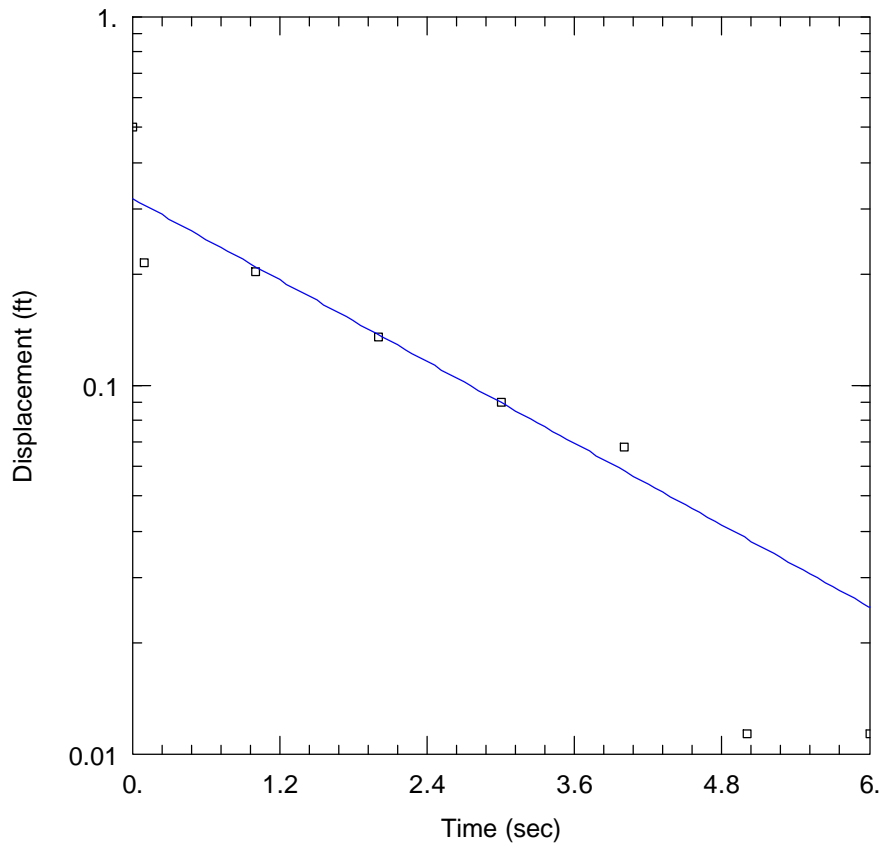
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.1504 cm/sec

y0 = 0.3735 ft



MW-25A RISING HEAD SLUG TEST #2

Data Set: C:\Buffalo China\MW25A\_D.aqt

Date: 07/09/09

Time: 11:08:59

PROJECT INFORMATION

Company: CRA

Client: Hodgson Russ

Project: 37191

Location: Former Buffalo China

Test Well: MW-25A

Test Date: June 30, 2009

AQUIFER DATA

Saturated Thickness: 7.2 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-25A)

Initial Displacement: 0.5 ft

Static Water Column Height: 7.2 ft

Total Well Penetration Depth: 7.2 ft

Screen Length: 5. ft

Casing Radius: 0.167 ft

Well Radius: 0.167 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: Bouwer-Rice

K = 0.101 cm/sec

y0 = 0.321 ft

APPENDIX F  
LABORATORY ANALYTICAL DATA PACKAGES  
(CD-ROM)

APPENDIX G  
DATA VALIDATION REPORTS  
(CD-ROM)



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## MEMORANDUM

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TO: Chris Barton

REF. NO.: 037191

FROM: Susan Scrocchi/bjw/1 *ses*

DATE: September 8, 2009  
REVISION: September 28, 2009

E-Mail and Hard Copy if Requested

RE: **Analytical Results and QA/QC Review  
Site Investigation-Soil and Groundwater  
Former Buffalo China Site  
Buffalo, New York  
May - July 2009**

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### INTRODUCTION

The following details a quality assessment and validation of the analytical data resulting from the collection of soil and groundwater samples from the Former Buffalo China Site in Buffalo, New York. The sample summary detailing sample identification, sample location, quality control (QC) samples and analytical parameters is presented in Table 1. Sample analysis was completed at TestAmerica Laboratories (TA), 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 QC criteria used to assess the data were established by the methods and the guidance document "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", United States Environmental Protection Agency (USEPA) 540/R-99/008, October 1999.

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

### SAMPLE QUANTITATION

The laboratory reported detected concentrations of organic compounds 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 with one exception. Sample WG-37191-072009-006 required a dilution which was analyzed one day outside of the required

holding time. The trichloroethene and cis-1,2-dichloroethene results were from the diluted analysis and qualified as estimated.

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) - VOLATILE ORGANIC COMPOUNDS (VOCS)

To ensure adequate mass resolution, identification, and to some degree, sensitivity; the performance of each GC/MS instrument used for VOC analysis was checked at the beginning of each 12-hour period using bromofluorobenzene (BFB). 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 analyses. The results of all instrument performance checks were within the acceptance criteria, indicating acceptable instrument performance.

#### GC/MS INITIAL CALIBRATION - VOCS

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.
- ii) The percent relative standard deviation (%RSD) values must not exceed 30.0 percent or a minimum coefficient of determination ( $R^2$ ) 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 sensitivity. 1,2-Dibromo-3-chloropropane yielded a high %RSD. All associated sample results were qualified as estimated (see Table 4).

#### GC/MS CONTINUING CALIBRATION - VOCS

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. 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.
- 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. Various compounds exhibited variability in response compared to the initial calibration. All associated sample results were qualified as estimated (see Table 5).

#### METHOD BLANK/LABORATORY 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. Some VOCs were present at low concentrations. All associated sample results with similar concentrations were qualified as non-detect (see Table 6).

#### 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.

All MS/MSD recoveries and RPDs were acceptable indicating acceptable laboratory performance.

#### LABORATORY CONTROL SAMPLE (LCS)

The LCS analysis serves as a monitor of the overall performance in all steps of the sample analysis and is analyzed with each sample batch. The LCS percent recoveries were evaluated against method and laboratory established control limits. Some LCS analyses were performed in duplicate to monitor laboratory precision.

The LCS percent recoveries were all within the laboratory control limits indicating acceptable analytical accuracy and precision (where applicable).

### 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 analysis 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.
- 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 internal standard data showed that the IS area counts and RT data were within the acceptance criteria for all VOC samples with the exception of one slightly low recovery. The associated sample results were qualified as estimated (see Table 7).

### TARGET COMPOUND IDENTIFICATION

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound RT 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.

Sample WG-37191-072109-017 was analyzed undiluted and at a dilution of 1:20. The undiluted results correlated with the field duplicate sample collected at the same location, whereas the diluted analysis yielded percent differences greater than 50. All results from the undiluted analysis were reported. The trichloroethene and cis-1,2-dichloroethene results were outside of the linear range of the calibration curve and were qualified as estimated.

### FIELD QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

The field QA/QC consisted of four trip blanks and four field duplicates.

#### *Trip Blanks*

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 with the exception of trichloroethene present in one trip blank. All associated sample results were non-detect or significantly greater than the trip blank and would not have been impacted.

#### Field Duplicates

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 soils. 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 and two times the RL value for soils.

All field duplicate results were acceptable.

#### 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 herein.

TABLE 1

SAMPLE AND ANALYSIS SUMMARY  
 SITE INVESTIGATION - SOIL AND GROUNDWATER  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY - JULY 2009

Sample I.D.	Location I.D.	Matrix	Start Depth (ft bgs)	End Depth (ft bgs)	Collection Date (mm/dd/yy)	Collection Time (hr:min)	<u>Analysis/Parameters</u>		Comment
							TCL	VOCs	
SO-37191-052709-JJW-001	MW-6A	Soil	6	8	05/27/09	10:45	X		
SO-37191-052709-JJW-002	MW-19A	Soil	6	8	05/27/09	13:45	X		
SO-37191-052709-JJW-003	MW-20A	Soil	6	8	06/01/09	10:00	X		
SO-37191-052709-JJW-004	MW-21A	Soil	2	4	06/01/09	13:00	X		
SO-37191-052709-JJW-005	MW-22A	Soil	10	12	06/01/09	15:00	X		
SO-37191-052709-JJW-006	MW-23A	Soil	12	14	06/02/09	11:00	X		
SO-37191-060409-JJW-007	MW-20	Soil	2	4	06/04/09	12:00	X		
SO-37191-060409-JJW-008	MW-19	Soil	6	8	06/04/09	14:00	X		
SO-37191-060409-JJW-009	MW-19	Soil	6	8	06/04/09	15:00	X		Field duplicate of SO-37191-060409-JJW-008
SO-37191-060809-JJW-010	MW-22	Soil	10	12	06/08/09	15:00	X		
Trip Blank	Trip Blank	-	-	-	06/08/09	-	X		
SO-37191-062209-JJW-011	MW-24A	Soil	0	2	06/22/09	8:00	X		
SO-37191-062209-JJW-012	MW-25A	Soil	4	6	06/22/09	9:30	X		
SO-37191-062209-JJW-013	MW-25	Soil	6	8	06/22/09	11:00	X		
WG-37191-072009-001	MW-19A	Groundwater	-	-	07/20/09	11:40	X		
WG-37191-072009-002	MW-19	Groundwater	-	-	07/20/09	11:40	X		
WG-37191-072009-003	MW-22A	Groundwater	-	-	07/20/09	12:30	X		
WG-37191-072009-004	MW-22	Groundwater	-	-	07/20/09	12:30	X		
WG-37191-072009-005	MW-14A	Groundwater	-	-	07/20/09	13:15	X		
WG-37191-072009-006	MW-11	Groundwater	-	-	07/20/09	13:40	X		
WG-37191-072009-007	MW-23A	Groundwater	-	-	07/20/09	14:10	X		
WG-37191-072009-008	MW-23A	Groundwater	-	-	07/20/09	14:15	X		Field duplicate of WG-37191-072009-007
WG-37191-072009-009	MW-25A	Groundwater	-	-	07/20/09	14:20	X		
WG-37191-072009-010	MW-24A	Groundwater	-	-	07/20/09	15:00	X		
WG-37191-072009-011	MW-10	Groundwater	-	-	07/20/09	15:00	X		
WG-37191-072009-012	MW-15A	Groundwater	-	-	07/20/09	15:50	X		
WG-37191-072009-013	MW-17	Groundwater	-	-	07/20/09	15:35	X		
TB-37191-702009	Trip Blank	-	-	-	07/20/09	-	X		
WG-37191-072109-014	MW-9A	Groundwater	-	-	07/21/09	8:55	X		
WG-37191-072109-015	MW-9	Groundwater	-	-	07/21/09	9:00	X		

TABLE 1

SAMPLE AND ANALYSIS SUMMARY  
 SITE INVESTIGATION - SOIL AND GROUNDWATER  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY - JULY 2009

Sample I.D.	Location I.D.	Matrix	Start Depth (ft bgs)	End Depth (ft bgs)	Collection Date (mm/dd/yy)	Collection Time (hr:min)	<u>Analysis/Parameters</u>		Comment
							TCL	VOCs	
WG-37191-072109-016	MW-21A	Groundwater	-	-	07/21/09	9:40	X		
WG-37191-072109-017	MW-21A	Groundwater	-	-	07/21/09	9:45	X		Field duplicate of WG-37191-072109-016
WG-37191-072109-018	MW-8	Groundwater	-	-	07/21/09	9:25	X		
TB-37191-072109	Trip Blank	-	-	-	07/21/09	-	X		
WG-37191-072209-029	MW-7A	Groundwater	-	-	07/22/09	8:45	X		
WG-37191-072209-030	MW-7	Groundwater	-	-	07/22/09	8:40	X		
WG-37191-072209-031	MW-20A	Groundwater	-	-	07/22/09	9:10	X		
WG-37191-072209-032	MW-20	Groundwater	-	-	07/22/09	9:20	X		
WG-37191-072209-033	MW-6A	Groundwater	-	-	07/22/09	10:15	X		
WG-37191-072209-034	MW-13A	Groundwater	-	-	07/22/09	10:10	X		
WG-37191-072209-035	MW-6	Groundwater	-	-	07/22/09	11:10	X		
WG-37191-072209-036	MW-12	Groundwater	-	-	07/22/09	11:15	X		
WG-37191-072209-037	MW-4	Groundwater	-	-	07/22/09	11:45	X		
WG-37191-072209-038	MW-5A	Groundwater	-	-	07/22/09	11:45	X		
WG-37191-072209-039	MW-5A	Groundwater	-	-	07/22/09	12:30	X		Field duplicate of WG-37191-072209-038
WG-37191-072209-040	MW-5	Groundwater	-	-	07/22/09	12:25	X		
WG-37191-072209-041	MW-18A	Groundwater	-	-	07/22/09	12:25	X		
WG-37191-072209-042	MW-18	Groundwater	-	-	07/22/09	13:10	X		
TB-37191-072209	Trip Blank	-	-	-	07/22/09	-	X		

Notes:

TCL - Target Compound List.

VOCs - Volatile Organic Compounds.

TABLE 2

SUMMARY OF ANALYTICAL METHODS  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY - JULY 2009

<i>Parameter</i>	<i>Method</i> <sup>1</sup>
<i>Groundwater and Soil</i> TCL VOCs	SW-846 8260B

## Notes:

- <sup>1</sup> "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd Edition, September 1986 (with all subsequent revisions).  
TCL Target Compound List.  
VOCs Volatile Organic Compounds.

**TABLE 3A**  
**ANALYTICAL RESULTS SUMMARY**  
**SITE INVESTIGATION - GROUNDWATER**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY - JULY 2009**

<i>Parameters</i>	<i>Units</i>	<i>Sample Location:</i>	<i>MW-4</i>	<i>MW-5</i>	<i>MW-5A</i>	<i>MW-5A</i>	<i>MW-6</i>
		<i>Sample ID:</i>	WG-37191-072209-037	WG-37191-072209-040	WG-37191-072209-038	WG-37191-072209-039	WG-37191-072209-035
		<i>Sample Date:</i>	7/22/2009	7/22/2009	7/22/2009	7/22/2009	7/22/2009
						Field Duplicate	
<i>Volatile Organic Compounds</i>							
1,1,1-Trichloroethane	µg/L		120 U	20000 U	120 U	1000 U	50 U
1,1,2,2-Tetrachloroethane	µg/L		120 UJ	20000 U	120 U	1000 UJ	50 UJ
1,1,2-Trichloroethane	µg/L		120 U	20000 U	120 U	1000 U	50 U
1,1-Dichloroethane	µg/L		120 U	20000 U	120 U	1000 U	50 U
1,1-Dichloroethene	µg/L		120 U	20000 U	40 J	1000 U	50 U
1,2,4-Trichlorobenzene	µg/L		120 UJ	20000 U	120 U	1000 UJ	50 UJ
1,2-Dibromo-3-chloropropane (DBCP)	µg/L		120 UJ	20000 U	120 U	1000 UJ	50 UJ
1,2-Dibromoethane (Ethylene Dibromide)	µg/L		120 U	20000 U	120 U	1000 U	50 U
1,2-Dichlorobenzene	µg/L		120 U	20000 U	120 U	1000 U	50 U
1,2-Dichloroethane	µg/L		120 U	20000 U	120 U	320 J	50 U
1,2-Dichloropropane	µg/L		120 U	20000 U	120 U	1000 U	50 U
1,3-Dichlorobenzene	µg/L		120 U	20000 U	120 U	1000 U	50 U
1,4-Dichlorobenzene	µg/L		120 U	20000 U	120 U	1000 U	50 U
2-Butanone (Methyl Ethyl Ketone)	µg/L		120 U	20000 U	120 U	1000 U	50 U
2-Hexanone	µg/L		120 U	20000 U	120 U	1000 U	50 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L		120 U	20000 U	120 U	120 J	50 U
Acetone	µg/L		500 U	80000 U	280 J	4000 U	200 U
Benzene	µg/L		120 U	20000 U	120 U	1000 U	50 U
Bromodichloromethane	µg/L		120 U	20000 U	120 U	1000 U	50 U
Bromoform	µg/L		120 U	20000 U	120 U	1000 U	50 U
Bromomethane (Methyl Bromide)	µg/L		120 U	20000 U	120 U	1000 U	50 U
Carbon disulfide	µg/L		120 U	20000 U	120 U	1000 U	50 U
Carbon tetrachloride	µg/L		120 U	20000 U	120 U	1000 U	50 U
Chlorobenzene	µg/L		120 U	20000 U	120 U	1000 U	50 U
Chloroethane	µg/L		120 U	20000 U	120 U	1000 U	50 U
Chloroform (Trichloromethane)	µg/L		120 U	20000 U	120 U	1000 U	50 U
Chloromethane (Methyl Chloride)	µg/L		120 U	20000 U	120 U	1000 U	50 U
cis-1,2-Dichloroethene	µg/L		1600	310000	18000	27000	740
cis-1,3-Dichloropropene	µg/L		120 U	20000 U	120 U	1000 U	50 U
Cyclohexane	µg/L		120 U	20000 U	120 U	1000 U	50 U

**TABLE 3A**  
**ANALYTICAL RESULTS SUMMARY**  
**SITE INVESTIGATION - GROUNDWATER**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY - JULY 2009**

<i>Parameters</i>	<i>Units</i>	<i>Sample Location:</i>	<i>MW-4</i>	<i>MW-5</i>	<i>MW-5A</i>	<i>MW-5A</i>	<i>MW-6</i>
		<i>Sample ID:</i>	WG-37191-072209-037	WG-37191-072209-040	WG-37191-072209-038	WG-37191-072209-039	WG-37191-072209-035
		<i>Sample Date:</i>	7/22/2009	7/22/2009	7/22/2009	7/22/2009	7/22/2009
						<i>Field Duplicate</i>	
<i>Volatile Organic Compounds (Cont'd.)</i>							
Dibromochloromethane	µg/L		120 U	20000 U	120 U	1000 U	50 U
Dichlorodifluoromethane (CFC-12)	µg/L		120 U	20000 U	120 U	1000 U	50 U
Ethylbenzene	µg/L		120 U	20000 U	120 U	1000 U	50 U
Isopropylbenzene	µg/L		120 U	20000 U	120 U	1000 U	50 U
Methyl acetate	µg/L		120 UJ	20000 U	120 U	1000 UJ	50 UJ
Methyl cyclohexane	µg/L		120 U	20000 U	120 U	1000 U	50 U
Methyl Tert Butyl Ether	µg/L		120 U	20000 U	120 U	1000 U	50 U
Methylene chloride	µg/L		120 U	20000 U	80 J	240 J	50 U
Styrene	µg/L		120 U	20000 U	120 U	1000 U	50 U
Tetrachloroethene	µg/L		120 U	20000 U	45 J	1000 U	50 U
Toluene	µg/L		120 U	96000	24 J	1000 U	50 U
trans-1,2-Dichloroethene	µg/L		29 J	20000 U	66 J	1000 U	50 U
trans-1,3-Dichloropropene	µg/L		120 U	20000 U	120 U	1000 U	50 U
Trichloroethene	µg/L		2200	410000	24000	35000	290
Trichlorofluoromethane (CFC-11)	µg/L		120 U	20000 U	120 U	1000 U	50 U
Trifluorotrichloroethane (Freon 113)	µg/L		120 U	20000 U	120 U	1000 U	50 U
Vinyl chloride	µg/L		120 U	20000 U	83 J	1000 U	50 U
Xylene (total)	µg/L		380 U	17000 J	110 J	3000 U	150 U



**TABLE 3A**

**ANALYTICAL RESULTS SUMMARY**  
**SITE INVESTIGATION - GROUNDWATER**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY - JULY 2009**

	<i>Sample Location:</i>	<i>MW-6A</i>	<i>MW-7</i>	<i>MW-7A</i>	<i>MW-8</i>	<i>MW-9</i>
	<i>Sample ID:</i>	WG-37191-072209-033	WG-37191-072209-030	WG-37191-072209-029	WG-37191-072109-018	WG-37191-072109-015
	<i>Sample Date:</i>	7/22/2009	7/22/2009	7/22/2009	7/21/2009	7/21/2009
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,1,1-Trichloroethane	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	12 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/L	12 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	12 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	µg/L	12 U	5.0 U	5.0 U	5.0 UJ	5.0 UJ
2-Hexanone	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/L	22 J	20 U	20 U	20 UJ	20 UJ
Benzene	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	30	5.0 U	0.90 J	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	µg/L	290	5.0 U	5.0 U	5.0 U	5.0 U

**TABLE 3A**  
**ANALYTICAL RESULTS SUMMARY**  
**SITE INVESTIGATION - GROUNDWATER**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY - JULY 2009**

	<i>Sample Location:</i>	<i>MW-6A</i>	<i>MW-7</i>	<i>MW-7A</i>	<i>MW-8</i>	<i>MW-9</i>
	<i>Sample ID:</i>	WG-37191-072209-033	WG-37191-072209-030	WG-37191-072209-029	WG-37191-072109-018	WG-37191-072109-015
	<i>Sample Date:</i>	7/22/2009	7/22/2009	7/22/2009	7/21/2009	7/21/2009
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds (Cont'd.)</i>						
Dibromochloromethane	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	2.9 J	5.0 U	5.0 U	5.0 U	5.0 U
Isopropylbenzene	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	µg/L	12 UJ	5.0 UJ	5.0 UJ	5.0 U	5.0 U
Methyl cyclohexane	µg/L	130	5.0 U	5.0 U	5.0 U	5.0 U
Methyl Tert Butyl Ether	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	12 U	5.0 U	5.0 U	1.1 J	5.0 U
Trichlorofluoromethane (CFC-11)	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L	12 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylene (total)	µg/L	17 J	15 U	15 U	15 U	15 U

TABLE 3A

**ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION - GROUNDWATER  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY - JULY 2009**

	<i>Sample Location:</i>	<i>MW-9A</i>	<i>MW-10</i>	<i>MW-11</i>	<i>MW-12</i>	<i>MW-13A</i>
	<i>Sample ID:</i>	WG-37191-072109-014	WG-37191-072009-011	WG-37191-072009-006	WG-37191-072209-036	WG-37191-072209-034
	<i>Sample Date:</i>	7/21/2009	7/20/2009	7/20/2009	7/22/2009	7/22/2009
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	120 UJ	1200 UJ
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	1.5 J	120 U	1200 U
1,2,4-Trichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	120 UJ	1200 UJ
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	5.0 U	5.0 U	5.0 U	120 UJ	1200 UJ
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
1,2-Dichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
1,3-Dichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
1,4-Dichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
2-Butanone (Methyl Ethyl Ketone)	µg/L	5.0 UJ	5.0 U	5.0 U	120 U	1200 U
2-Hexanone	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Acetone	µg/L	20 UJ	20 UJ	12 J	500 U	5000 U
Benzene	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Bromomethane (Methyl Bromide)	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Chloromethane (Methyl Chloride)	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	350 J	1100	42000
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Cyclohexane	µg/L	2.0 J	5.0 U	5.0 U	120 U	1200 U

TABLE 3A

**ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION - GROUNDWATER  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY - JULY 2009**

	<i>Sample Location:</i>	<i>MW-9A</i>	<i>MW-10</i>	<i>MW-11</i>	<i>MW-12</i>	<i>MW-13A</i>
	<i>Sample ID:</i>	WG-37191-072109-014	WG-37191-072009-011	WG-37191-072009-006	WG-37191-072209-036	WG-37191-072209-034
	<i>Sample Date:</i>	7/21/2009	7/20/2009	7/20/2009	7/22/2009	7/22/2009
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds (Cont'd.)</i>						
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Isopropylbenzene	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Methyl acetate	µg/L	5.0 U	5.0 U	5.0 U	120 UJ	1200 UJ
Methyl cyclohexane	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Methyl Tert Butyl Ether	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	63 J	1200 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.6	120 U	1200 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Trichloroethene	µg/L	5.0 U	0.86 J	120 J	4400	39000
Trichlorofluoromethane (CFC-11)	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Trifluorotrichloroethane (Freon 113)	µg/L	5.0 U	5.0 U	5.0 U	120 U	1200 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	120 U	530 J
Xylene (total)	µg/L	15 U	15 U	15 U	380 U	3800 U

**TABLE 3A**

**ANALYTICAL RESULTS SUMMARY**  
**SITE INVESTIGATION - GROUNDWATER**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY - JULY 2009**

	<i>Sample Location:</i>	<i>MW-14A</i>	<i>MW-15A</i>	<i>MW-17</i>	<i>MW-18</i>	<i>MW-18A</i>
	<i>Sample ID:</i>	WG-37191-072009-005	WG-37191-072009-012	WG-37191-072009-013	WG-37191-072209-042	WG-37191-072209-041
	<i>Sample Date:</i>	7/20/2009	7/20/2009	7/20/2009	7/22/2009	7/22/2009
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	50 UJ	1500 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
1,1-Dichloroethane	µg/L	1.4 J	5.0 U	5.0 U	50 U	1500 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
1,2,4-Trichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	50 UJ	1500 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	5.0 U	5.0 U	5.0 U	50 UJ	1500 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
1,2-Dichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
1,3-Dichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
1,4-Dichlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
2-Butanone (Methyl Ethyl Ketone)	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
2-Hexanone	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Acetone	µg/L	20 UJ	20 UJ	11 J	200 U	6000 U
Benzene	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Bromomethane (Methyl Bromide)	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Chloroform (Trichloromethane)	µg/L	2.6 J	5.0 U	5.0 U	50 U	1500 U
Chloromethane (Methyl Chloride)	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
cis-1,2-Dichloroethene	µg/L	120	1.1 J	5.0 U	45 J	4600
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Cyclohexane	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U

TABLE 3A

**ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION - GROUNDWATER  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY - JULY 2009**

	<i>Sample Location:</i>	<i>MW-14A</i>	<i>MW-15A</i>	<i>MW-17</i>	<i>MW-18</i>	<i>MW-18A</i>
	<i>Sample ID:</i>	WG-37191-072009-005	WG-37191-072009-012	WG-37191-072009-013	WG-37191-072209-042	WG-37191-072209-041
	<i>Sample Date:</i>	7/20/2009	7/20/2009	7/20/2009	7/22/2009	7/22/2009
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds (Cont'd.)</i>						
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Isopropylbenzene	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Methyl acetate	µg/L	5.0 U	5.0 U	5.0 U	50 UJ	1500 U
Methyl cyclohexane	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Methyl Tert Butyl Ether	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Tetrachloroethene	µg/L	2.2 J	5.0 U	5.0 U	50 U	1500 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
trans-1,2-Dichloroethene	µg/L	0.88 J	5.0 U	5.0 U	50 U	1500 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Trichloroethene	µg/L	190	4.5 J	5.0 U	680	26000
Trichlorofluoromethane (CFC-11)	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Trifluorotrichloroethane (Freon 113)	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	50 U	1500 U
Xylene (total)	µg/L	4.3 J	4.3 J	15 U	150 U	1300 J

TABLE 3A

**ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION - GROUNDWATER  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY - JULY 2009**

	<i>Sample Location:</i>	<i>MW-19</i>	<i>MW-19A</i>	<i>MW-20</i>	<i>MW-20A</i>	<i>MW-21A</i>
	<i>Sample ID:</i>	WG-37191-072009-002	WG-37191-072009-001	WG-37191-072209-032	WG-37191-072209-031	WG-37191-072109-016
	<i>Sample Date:</i>	7/20/2009	7/20/2009	7/22/2009	7/22/2009	7/21/2009
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds</i>						
1,1,1-Trichloroethane	µg/L	500 U	200 U	5.0 U	25 U	50 U
1,1,2,2-Tetrachloroethane	µg/L	500 U	200 U	5.0 UJ	25 UJ	50 U
1,1,2-Trichloroethane	µg/L	500 U	200 U	5.0 U	25 U	50 U
1,1-Dichloroethane	µg/L	500 U	200 U	5.0 U	25 U	50 U
1,1-Dichloroethene	µg/L	500 U	200 U	1.3 J	25 U	50 U
1,2,4-Trichlorobenzene	µg/L	500 U	200 U	5.0 UJ	25 UJ	50 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	500 U	200 U	5.0 UJ	25 UJ	50 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	500 U	200 U	5.0 U	25 UJ	50 U
1,2-Dichlorobenzene	µg/L	500 U	200 U	5.0 U	25 U	50 U
1,2-Dichloroethane	µg/L	500 U	200 U	5.0 U	25 U	50 U
1,2-Dichloropropane	µg/L	500 U	200 U	5.0 U	25 U	50 U
1,3-Dichlorobenzene	µg/L	500 U	200 U	5.0 U	25 U	50 U
1,4-Dichlorobenzene	µg/L	500 U	200 U	5.0 U	25 U	50 U
2-Butanone (Methyl Ethyl Ketone)	µg/L	500 U	200 U	5.0 U	25 U	50 U
2-Hexanone	µg/L	500 U	200 U	5.0 U	25 U	50 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L	500 U	200 U	5.0 U	25 U	50 U
Acetone	µg/L	2000 UJ	800 UJ	20 U	100 U	110 J
Benzene	µg/L	500 U	200 U	5.0 U	25 U	50 U
Bromodichloromethane	µg/L	500 U	200 U	5.0 U	25 U	50 U
Bromoform	µg/L	500 U	200 U	5.0 U	25 UJ	50 U
Bromomethane (Methyl Bromide)	µg/L	500 U	200 U	5.0 U	25 U	50 U
Carbon disulfide	µg/L	500 U	200 U	5.0 U	25 U	50 U
Carbon tetrachloride	µg/L	500 U	200 U	5.0 U	25 UJ	50 U
Chlorobenzene	µg/L	500 U	200 U	5.0 U	25 U	50 U
Chloroethane	µg/L	500 U	200 U	5.0 U	25 U	50 U
Chloroform (Trichloromethane)	µg/L	500 U	200 U	5.0 U	25 U	50 U
Chloromethane (Methyl Chloride)	µg/L	500 U	200 U	5.0 U	25 U	50 U
cis-1,2-Dichloroethene	µg/L	410 J	1100	89	620	890
cis-1,3-Dichloropropene	µg/L	500 U	200 U	5.0 U	25 U	50 U
Cyclohexane	µg/L	500 U	200 U	5.0 U	25 U	50 U

**TABLE 3A**

**ANALYTICAL RESULTS SUMMARY**  
**SITE INVESTIGATION - GROUNDWATER**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY - JULY 2009**

	<i>Sample Location:</i>	<i>MW-19</i>	<i>MW-19A</i>	<i>MW-20</i>	<i>MW-20A</i>	<i>MW-21A</i>
	<i>Sample ID:</i>	WG-37191-072009-002	WG-37191-072009-001	WG-37191-072209-032	WG-37191-072209-031	WG-37191-072109-016
	<i>Sample Date:</i>	7/20/2009	7/20/2009	7/22/2009	7/22/2009	7/21/2009
<i>Parameters</i>	<i>Units</i>					
<i>Volatile Organic Compounds (Cont'd.)</i>						
Dibromochloromethane	µg/L	500 U	200 U	5.0 U	25 UJ	50 U
Dichlorodifluoromethane (CFC-12)	µg/L	500 U	200 U	5.0 U	25 U	50 U
Ethylbenzene	µg/L	500 U	200 U	5.0 U	25 UJ	50 U
Isopropylbenzene	µg/L	500 U	200 U	5.0 U	25 UJ	50 U
Methyl acetate	µg/L	500 U	200 U	5.0 UJ	25 UJ	50 U
Methyl cyclohexane	µg/L	500 U	200 U	5.0 U	25 U	50 U
Methyl Tert Butyl Ether	µg/L	500 U	200 U	5.0 U	25 U	50 U
Methylene chloride	µg/L	500 U	200 U	5.0 U	5.9 J	50 U
Styrene	µg/L	500 U	200 U	5.0 U	25 UJ	50 U
Tetrachloroethene	µg/L	500 U	200 U	5.0 U	25 U	50 U
Toluene	µg/L	500 U	200 U	5.0 U	25 U	50 U
trans-1,2-Dichloroethene	µg/L	500 U	200 U	3.0 J	5.5 J	11 J
trans-1,3-Dichloropropene	µg/L	500 U	200 U	5.0 U	25 U	50 U
Trichloroethene	µg/L	15000	4600	19	200	2400
Trichlorofluoromethane (CFC-11)	µg/L	500 U	200 U	5.0 U	25 U	50 U
Trifluorotrchloroethane (Freon 113)	µg/L	500 U	200 U	5.0 U	25 U	50 U
Vinyl chloride	µg/L	500 U	70 J	5.5	14 J	26 J
Xylene (total)	µg/L	1500 U	600 U	15 U	75 UJ	44 J



**TABLE 3A**  
**ANALYTICAL RESULTS SUMMARY**  
**SITE INVESTIGATION - GROUNDWATER**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY - JULY 2009**

Parameters	Units	Sample Location:	MW-21A	MW-22	MW-22A	MW-23A	MW-23A
		Sample ID:	WG-37191-072109-017	WG-37191-072009-004	WG-37191-072009-003	WG-37191-072009-007	WG-37191-072009-008
		Sample Date:	7/21/2009	7/20/2009	7/20/2009	7/20/2009	7/20/2009
			Field Duplicate				Field Duplicate
<b>Volatile Organic Compounds</b>							
1,1,1-Trichloroethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L		2.5 J	5.0 U	5.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	µg/L		5.0 UJ	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/L		20 UJ	20 UJ	11 J	20 UJ	20 UJ
Benzene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L		710 J	1.5 J	5.0 U	0.99 J	5.0 U
cis-1,3-Dichloropropene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Cyclohexane	µg/L		5.0 U	5.0 U	22	7.4	7.4

TABLE 3A

**ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION - GROUNDWATER  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY - JULY 2009**

Parameters	Units	Sample Location:	MW-21A	MW-22	MW-22A	MW-23A	MW-23A
		Sample ID:	WG-37191-072109-017	WG-37191-072009-004	WG-37191-072009-003	WG-37191-072009-007	WG-37191-072009-008
		Sample Date:	7/21/2009	7/20/2009	7/20/2009	7/20/2009	7/20/2009
			Field Duplicate				Field Duplicate
<i>Volatile Organic Compounds (Cont'd.)</i>							
Dibromochloromethane	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L		5.0 U	5.0 U	1.0 J	5.0 U	5.0 U
Isopropylbenzene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl acetate	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl cyclohexane	µg/L		5.0 U	5.0 U	17	5.3	5.4
Methyl Tert Butyl Ether	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L		7.2	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L		1900 J	30	5.0 U	1.6 J	5.0 U
Trichlorofluoromethane (CFC-11)	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trifluorotrchloroethane (Freon 113)	µg/L		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl chloride	µg/L		42	5.0 U	5.0 U	5.0 U	5.0 U
Xylene (total)	µg/L		15 U	4.3 J	11 J	6.9 J	6.9 J

**TABLE 3A**

**ANALYTICAL RESULTS SUMMARY**  
**SITE INVESTIGATION - GROUNDWATER**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY - JULY 2009**

	<i>Sample Location:</i>	<i>MW-24A</i>	<i>MW-25A</i>
	<i>Sample ID:</i>	<i>WG-37191-072009-010</i>	<i>WG-37191-072009-009</i>
	<i>Sample Date:</i>	<i>7/20/2009</i>	<i>7/20/2009</i>
<i>Parameters</i>	<i>Units</i>		
<i>Volatile Organic Compounds</i>			
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	5.0 U	5.0 U
1,2-Dichlorobenzene	µg/L	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U
1,3-Dichlorobenzene	µg/L	5.0 U	5.0 U
1,4-Dichlorobenzene	µg/L	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	µg/L	5.0 U	5.0 U
2-Hexanone	µg/L	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L	5.0 U	5.0 U
Acetone	µg/L	20 UJ	11 J
Benzene	µg/L	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	µg/L	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 UJ
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	µg/L	5.0 U	5.0 UJ
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U
Cyclohexane	µg/L	0.78 J	5.0 U

TABLE 3A

ANALYTICAL RESULTS SUMMARY  
 SITE INVESTIGATION - GROUNDWATER  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY - JULY 2009

<i>Sample Location:</i>	<i>MW-24A</i>	<i>MW-25A</i>
<i>Sample ID:</i>	WG-37191-072009-010	WG-37191-072009-009
<i>Sample Date:</i>	7/20/2009	7/20/2009

<i>Parameters</i>	<i>Units</i>		
<i>Volatile Organic Compounds (Cont'd.)</i>			
Dibromochloromethane	µg/L	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	5.0 UJ
Ethylbenzene	µg/L	5.0 U	5.0 U
Isopropylbenzene	µg/L	5.0 U	5.0 U
Methyl acetate	µg/L	5.0 U	5.0 U
Methyl cyclohexane	µg/L	1.2 J	5.0 U
Methyl Tert Butyl Ether	µg/L	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	1.1 J
Trichlorofluoromethane (CFC-11)	µg/L	5.0 U	5.0 U
Trifluorotrchloroethane (Freon 113)	µg/L	5.0 U	5.0 U
Vinyl chloride	µg/L	5.0 U	5.0 U
Xylene (total)	µg/L	4.4 J	15 U

Notes:

J - Estimated.

U - Not detected.

UJ - Not detected, estimated reporting limit.

TABLE 3B

**ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION - SOIL  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY - JULY 2009**

	<i>Sample Location:</i>	<i>MW-6A</i>	<i>MW-19</i>	<i>MW-19</i>	<i>MW-19A</i>
	<i>Sample ID:</i>	SO-37191-052709-JJW-001	SO-37191-060409-JJW-008	SO-37191-060409-JJW-009	SO-37191-052709-JJW-002
	<i>Sample Date:</i>	5/27/2009	6/4/2009	6/4/2009	5/27/2009
	<i>Sample Depth:</i>	6-8 ft BGS	6-8 ft BGS	6-8 ft BGS	6-8 ft BGS
				<i>Field Duplicate</i>	
<i>Parameters</i>	<i>Units</i>				
<b><i>Volatile Organic Compounds</i></b>					
1,1,1-Trichloroethane	µg/kg	6.3 U	280 U	280 U	290 U
1,1,2,2-Tetrachloroethane	µg/kg	6.3 UJ	280 U	280 U	290 UJ
1,1,2-Trichloroethane	µg/kg	6.3 U	280 U	280 U	290 U
1,1-Dichloroethane	µg/kg	6.3 U	280 U	280 U	290 U
1,1-Dichloroethene	µg/kg	6.3 U	280 U	280 U	290 U
1,2,4-Trichlorobenzene	µg/kg	6.3 U	280 U	280 U	290 UJ
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	6.3 U	280 U	280 U	290 UJ
1,2-Dibromoethane (Ethylene Dibromide)	µg/kg	6.3 U	280 U	280 U	290 U
1,2-Dichlorobenzene	µg/kg	6.3 U	280 U	280 U	290 U
1,2-Dichloroethane	µg/kg	6.3 U	280 U	280 U	290 U
1,2-Dichloropropane	µg/kg	6.3 U	280 U	280 U	290 U
1,3-Dichlorobenzene	µg/kg	6.3 U	280 U	280 U	290 U
1,4-Dichlorobenzene	µg/kg	6.3 U	280 U	280 U	290 U
2-Butanone (Methyl Ethyl Ketone)	µg/kg	6.3 UJ	240 J	260 J	290 U
2-Hexanone	µg/kg	6.3 UJ	280 UJ	280 UJ	290 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/kg	6.3 UJ	280 UJ	280 UJ	290 U
Acetone	µg/kg	11 J	1100 UJ	1100 UJ	1200 UJ
Benzene	µg/kg	6.3 U	280 U	280 U	290 U
Bromodichloromethane	µg/kg	6.3 U	280 U	280 U	290 U
Bromoform	µg/kg	6.3 U	280 U	280 U	290 U
Bromomethane (Methyl Bromide)	µg/kg	6.3 U	280 U	280 U	290 U
Carbon disulfide	µg/kg	6.3 U	280 U	280 U	290 U
Carbon tetrachloride	µg/kg	6.3 U	280 U	280 U	290 U
Chlorobenzene	µg/kg	6.3 U	280 U	280 U	290 U
Chloroethane	µg/kg	6.3 U	280 U	280 U	290 U
Chloroform (Trichloromethane)	µg/kg	6.3 U	280 U	280 U	290 U
Chloromethane (Methyl Chloride)	µg/kg	6.3 U	280 U	280 U	290 U
cis-1,2-Dichloroethene	µg/kg	29	280 U	280 U	290 U
cis-1,3-Dichloropropene	µg/kg	6.3 U	280 U	280 U	290 U

TABLE 3B

**ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION - SOIL  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY - JULY 2009**

	<i>Sample Location:</i>	<i>MW-6A</i>	<i>MW-19</i>	<i>MW-19</i>	<i>MW-19A</i>
	<i>Sample ID:</i>	SO-37191-052709-JJW-001	SO-37191-060409-JJW-008	SO-37191-060409-JJW-009	SO-37191-052709-JJW-002
	<i>Sample Date:</i>	5/27/2009	6/4/2009	6/4/2009	5/27/2009
	<i>Sample Depth:</i>	6-8 ft BGS	6-8 ft BGS	6-8 ft BGS	6-8 ft BGS
				<i>Field Duplicate</i>	
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds (Cont'd.)</i>					
Cyclohexane	µg/kg	6.3 U	280 U	280 U	290 U
Dibromochloromethane	µg/kg	6.3 U	280 U	280 U	290 U
Dichlorodifluoromethane (CFC-12)	µg/kg	6.3 U	280 UJ	280 UJ	290 U
Ethylbenzene	µg/kg	6.3 U	280 U	280 U	290 U
Isopropylbenzene	µg/kg	6.3 U	280 U	280 U	290 U
Methyl acetate	µg/kg	6.3 U	280 UJ	280 UJ	290 UJ
Methyl cyclohexane	µg/kg	6.3 U	280 U	280 U	290 U
Methyl Tert Butyl Ether	µg/kg	6.3 U	280 U	280 U	290 U
Methylene chloride	µg/kg	6.3 U	280 U	280 U	290 U
Styrene	µg/kg	6.3 U	280 U	280 U	290 U
Tetrachloroethene	µg/kg	6.3 U	46 J	53 J	78 J
Toluene	µg/kg	6.3 U	280 U	280 U	290 U
trans-1,2-Dichloroethene	µg/kg	6.3 U	280 U	280 U	290 U
trans-1,3-Dichloropropene	µg/kg	6.3 U	280 U	280 U	290 U
Trichloroethene	µg/kg	21	1800	1300	4600
Trichlorofluoromethane (CFC-11)	µg/kg	6.3 U	280 UJ	280 UJ	290 U
Trifluorotrichloroethane (Freon 113)	µg/kg	6.3 U	280 U	280 U	290 U
Vinyl chloride	µg/kg	6.3 U	280 U	280 U	290 U
Xylene (total)	µg/kg	19 U	830 U	830 U	880 U
<i>Wet Chemistry</i>					
Total Solids	%	79.5	90.8	89.8	85.2

TABLE 3B

**ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION - SOIL  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY - JULY 2009**

	<i>Sample Location:</i>	<i>MW-20</i>	<i>MW-20A</i>	<i>MW-21A</i>	<i>MW-22</i>
	<i>Sample ID:</i>	SO-37191-060409-JJW-007	SO-37191-060109-JJW-003	SO-37191-060109-JJW-004	SO-37191-060809-JJW-010
	<i>Sample Date:</i>	6/4/2009	6/1/2009	6/1/2009	6/8/2009
	<i>Sample Depth:</i>	2-4 ft BGS	6-8 ft BGS	2-4 ft BGS	10-12 ft BGS
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds</i>					
1,1,1-Trichloroethane	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
1,1,2,2-Tetrachloroethane	µg/kg	6.2 U	6.1 U	6.3 U	5.7 UJ
1,1,2-Trichloroethane	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
1,1-Dichloroethane	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
1,1-Dichloroethene	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
1,2,4-Trichlorobenzene	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	6.2 UJ	6.1 UJ	6.3 UJ	5.7 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
1,2-Dichlorobenzene	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
1,2-Dichloroethane	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
1,2-Dichloropropane	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
1,3-Dichlorobenzene	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
1,4-Dichlorobenzene	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
2-Butanone (Methyl Ethyl Ketone)	µg/kg	6.2 UJ	6.1 U	6.3 U	5.7 U
2-Hexanone	µg/kg	6.2 UJ	6.1 UJ	6.3 UJ	5.7 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Acetone	µg/kg	25 UJ	24 UJ	25 UJ	23 UJ
Benzene	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Bromodichloromethane	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Bromoform	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Bromomethane (Methyl Bromide)	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Carbon disulfide	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Carbon tetrachloride	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Chlorobenzene	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Chloroethane	µg/kg	6.2 UJ	6.1 UJ	6.3 UJ	5.7 UJ
Chloroform (Trichloromethane)	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Chloromethane (Methyl Chloride)	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
cis-1,2-Dichloroethene	µg/kg	6.2 U	6.1 U	1.0 J	5.7 U
cis-1,3-Dichloropropene	µg/kg	6.2 U	6.1 UJ	6.3 UJ	5.7 U

TABLE 3B

**ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION - SOIL  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY - JULY 2009**

	<i>Sample Location:</i>	MW-20	MW-20A	MW-21A	MW-22
	<i>Sample ID:</i>	SO-37191-060409-JJW-007	SO-37191-060109-JJW-003	SO-37191-060109-JJW-004	SO-37191-060809-JJW-010
	<i>Sample Date:</i>	6/4/2009	6/1/2009	6/1/2009	6/8/2009
	<i>Sample Depth:</i>	2-4 ft BGS	6-8 ft BGS	2-4 ft BGS	10-12 ft BGS
<i>Parameters</i>	<i>Units</i>				
<b><i>Volatile Organic Compounds (Cont'd.)</i></b>					
Cyclohexane	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Dibromochloromethane	µg/kg	6.2 U	6.1 UJ	6.3 UJ	5.7 U
Dichlorodifluoromethane (CFC-12)	µg/kg	6.2 U	6.1 U	6.3 U	5.7 UJ
Ethylbenzene	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Isopropylbenzene	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Methyl acetate	µg/kg	6.2 UJ	6.1 UJ	6.3 UJ	5.7 U
Methyl cyclohexane	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Methyl Tert Butyl Ether	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Methylene chloride	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Styrene	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Tetrachloroethene	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Toluene	µg/kg	6.2 U	6.1 U	6.3 U	2.2 J
trans-1,2-Dichloroethene	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
trans-1,3-Dichloropropene	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Trichloroethene	µg/kg	6.2 U	6.1 U	3.7 J	5.7 U
Trichlorofluoromethane (CFC-11)	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Trifluorotrichloroethane (Freon 113)	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Vinyl chloride	µg/kg	6.2 U	6.1 U	6.3 U	5.7 U
Xylene (total)	µg/kg	19 U	18 U	19 U	17 U
<b><i>Wet Chemistry</i></b>					
Total Solids	%	81.0	82.6	79.6	88.1



TABLE 3B

**ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION - SOIL  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY - JULY 2009**

	<i>Sample Location:</i>	<i>MW-22A</i>	<i>MW-23A</i>	<i>MW-24A</i>	<i>MW-25</i>
	<i>Sample ID:</i>	SO-37191-060109-JJW-005	SO-37191-060209-JJW-006	SO-37191-062209-JJW-011	SO-37191-062209-JJW-013
	<i>Sample Date:</i>	6/1/2009	6/2/2009	6/22/2009	6/22/2009
	<i>Sample Depth:</i>	10-12 ft BGS	12-14 ft BGS	0-2 ft BGS	6-8 ft BGS
<i>Parameters</i>	<i>Units</i>				
<b><i>Volatile Organic Compounds</i></b>					
1,1,1-Trichloroethane	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
1,1,2,2-Tetrachloroethane	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
1,1,2-Trichloroethane	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
1,1-Dichloroethane	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
1,1-Dichloroethene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
1,2,4-Trichlorobenzene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	6.1 UJ	5.9 UJ	6.5 UJ	5.5 UJ
1,2-Dibromoethane (Ethylene Dibromide)	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
1,2-Dichlorobenzene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
1,2-Dichloroethane	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
1,2-Dichloropropane	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
1,3-Dichlorobenzene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
1,4-Dichlorobenzene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
2-Butanone (Methyl Ethyl Ketone)	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
2-Hexanone	µg/kg	6.1 UJ	5.9 UJ	6.5 U	5.5 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Acetone	µg/kg	24 UJ	24 UJ	26 U	22 U
Benzene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Bromodichloromethane	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Bromoform	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Bromomethane (Methyl Bromide)	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Carbon disulfide	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Carbon tetrachloride	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Chlorobenzene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Chloroethane	µg/kg	6.1 UJ	5.9 UJ	6.5 U	5.5 U
Chloroform (Trichloromethane)	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Chloromethane (Methyl Chloride)	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
cis-1,2-Dichloroethene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
cis-1,3-Dichloropropene	µg/kg	6.1 UJ	5.9 UJ	6.5 U	5.5 U

TABLE 3B

**ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION - SOIL  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY - JULY 2009**

	<i>Sample Location:</i>	<i>MW-22A</i>	<i>MW-23A</i>	<i>MW-24A</i>	<i>MW-25</i>
	<i>Sample ID:</i>	SO-37191-060109-JJW-005	SO-37191-060209-JJW-006	SO-37191-062209-JJW-011	SO-37191-062209-JJW-013
	<i>Sample Date:</i>	6/1/2009	6/2/2009	6/22/2009	6/22/2009
	<i>Sample Depth:</i>	10-12 ft BGS	12-14 ft BGS	0-2 ft BGS	6-8 ft BGS
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds (Cont'd.)</i>					
Cyclohexane	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Dibromochloromethane	µg/kg	6.1 UJ	5.9 UJ	6.5 U	5.5 U
Dichlorodifluoromethane (CFC-12)	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Ethylbenzene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Isopropylbenzene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Methyl acetate	µg/kg	6.1 UJ	5.9 UJ	6.5 U	5.5 U
Methyl cyclohexane	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Methyl Tert Butyl Ether	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Methylene chloride	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Styrene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Tetrachloroethene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Toluene	µg/kg	6.1 U	5.9 U	1.1 J	5.5 U
trans-1,2-Dichloroethene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
trans-1,3-Dichloropropene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Trichloroethene	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Trichlorofluoromethane (CFC-11)	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Trifluorotrichloroethane (Freon 113)	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Vinyl chloride	µg/kg	6.1 U	5.9 U	6.5 U	5.5 U
Xylene (total)	µg/kg	18 U	18 U	20 U	17 U
<i>Wet Chemistry</i>					
Total Solids	%	82.2	84.9	76.6	90.8

TABLE 3B

**ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION - SOIL  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY - JULY 2009**

*Sample Location:* MW-25A  
*Sample ID:* SO-37191-062209-JJW-012  
*Sample Date:* 6/22/2009  
*Sample Depth:* 4-6 ft BGS

<i>Parameters</i>	<i>Units</i>	
<i>Volatile Organic Compounds</i>		
1,1,1-Trichloroethane	µg/kg	6.0 U
1,1,2,2-Tetrachloroethane	µg/kg	6.0 U
1,1,2-Trichloroethane	µg/kg	6.0 U
1,1-Dichloroethane	µg/kg	6.0 U
1,1-Dichloroethene	µg/kg	6.0 U
1,2,4-Trichlorobenzene	µg/kg	6.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/kg	6.0 UJ
1,2-Dibromoethane (Ethylene Dibromide)	µg/kg	6.0 U
1,2-Dichlorobenzene	µg/kg	6.0 U
1,2-Dichloroethane	µg/kg	6.0 U
1,2-Dichloropropane	µg/kg	6.0 U
1,3-Dichlorobenzene	µg/kg	6.0 U
1,4-Dichlorobenzene	µg/kg	6.0 U
2-Butanone (Methyl Ethyl Ketone)	µg/kg	6.0 U
2-Hexanone	µg/kg	6.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/kg	6.0 U
Acetone	µg/kg	24 U
Benzene	µg/kg	6.0 U
Bromodichloromethane	µg/kg	6.0 U
Bromoform	µg/kg	6.0 U
Bromomethane (Methyl Bromide)	µg/kg	6.0 U
Carbon disulfide	µg/kg	6.0 U
Carbon tetrachloride	µg/kg	6.0 U
Chlorobenzene	µg/kg	6.0 U
Chloroethane	µg/kg	6.0 U
Chloroform (Trichloromethane)	µg/kg	6.0 U
Chloromethane (Methyl Chloride)	µg/kg	6.0 U
cis-1,2-Dichloroethene	µg/kg	6.0 U
cis-1,3-Dichloropropene	µg/kg	6.0 U

TABLE 3B

**ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION - SOIL  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY - JULY 2009**

*Sample Location:* MW-25A  
*Sample ID:* SO-37191-062209-JJW-012  
*Sample Date:* 6/22/2009  
*Sample Depth:* 4-6 ft BGS

<i>Parameters</i>	<i>Units</i>	
<i>Volatile Organic Compounds (Cont'd.)</i>		
Cyclohexane	µg/kg	6.0 U
Dibromochloromethane	µg/kg	6.0 U
Dichlorodifluoromethane (CFC-12)	µg/kg	6.0 U
Ethylbenzene	µg/kg	6.0 U
Isopropylbenzene	µg/kg	6.0 U
Methyl acetate	µg/kg	6.0 U
Methyl cyclohexane	µg/kg	6.0 U
Methyl Tert Butyl Ether	µg/kg	6.0 U
Methylene chloride	µg/kg	6.0 U
Styrene	µg/kg	6.0 U
Tetrachloroethene	µg/kg	6.0 U
Toluene	µg/kg	6.0 U
trans-1,2-Dichloroethene	µg/kg	6.0 U
trans-1,3-Dichloropropene	µg/kg	6.0 U
Trichloroethene	µg/kg	6.0 U
Trichlorofluoromethane (CFC-11)	µg/kg	6.0 U
Trifluorotrchloroethane (Freon 113)	µg/kg	6.0 U
Vinyl chloride	µg/kg	6.0 U
Xylene (total)	µg/kg	18 U
<i>Wet Chemistry</i>		
Total Solids	%	83.1

## Notes:

J - Estimated.

U - Not detected.

UJ - Not detected, estimated reporting limit.

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INITIAL CALIBRATION RESULTS  
 SITE INVESTIGATION - SOIL AND GROUNDWATER  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY - JULY 2009

<i>Parameter</i>	<i>Compound</i>	<i>Calibration Date</i>	<i>R<sup>2</sup></i>	<i>Associated Sample ID</i>	<i>Qualified Sample Results</i>	<i>Units</i>
VOCs	1,2-Dibromo-3-chloropropane (DBCP)	6/29/09	31	SO-37191-062209-JJW-011	6.5 UJ	µg/Kg
				SO-37191-062209-JJW-012	6.0 UJ	µg/Kg
				SO-37191-062209-JJW-013	5.5 UJ	µg/Kg

Notes:

UJ Not detected, estimated reporting limit.  
 VOCs Volatile Organic Compounds.

TABLE 5  
 QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS  
 SITE INVESTIGATION - SOIL AND GROUNDWATER  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY - JULY 2009

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Qualified Sample Results</i>	<i>Units</i>
VOCs	8/4/09	1,1,2,2-Tetrachloroethane	39	WG-37191-072209-029	5.0 UJ	µg/L
				WG-37191-072209-030	5.0 UJ	µg/L
				WG-37191-072209-031	25 UJ	µg/L
				WG-37191-072209-032	5.0 UJ	µg/L
				WG-37191-072209-033	12 UJ	µg/L
				WG-37191-072209-034	1200 UJ	µg/L
				WG-37191-072209-035	50 UJ	µg/L
				WG-37191-072209-036	120 UJ	µg/L
				WG-37191-072209-037	120 UJ	µg/L
				WG-37191-072209-039	1000 UJ	µg/L
				WG-37191-072209-042	50 UJ	µg/L
VOCs	8/4/09	1,2,4-Trichlorobenzene	32	WG-37191-072209-029	5.0 UJ	µg/L
				WG-37191-072209-032	5.0 UJ	µg/L
				WG-37191-072209-030	5.0 UJ	µg/L
				WG-37191-072209-033	12 UJ	µg/L
				WG-37191-072209-031	25 UJ	µg/L
				WG-37191-072209-034	1200 UJ	µg/L
				WG-37191-072209-035	50 UJ	µg/L
				WG-37191-072209-036	120 UJ	µg/L
				WG-37191-072209-037	120 UJ	µg/L
				WG-37191-072209-039	1000 UJ	µg/L
				WG-37191-072209-042	50 UJ	µg/L
VOCs	8/4/09	1,2-Dibromo-3-chloropropane (DBCP)	48	WG-37191-072209-031	25 UJ	µg/L
				WG-37191-072209-029	5.0 UJ	µg/L
				WG-37191-072209-030	5.0 UJ	µg/L
				WG-37191-072209-032	5.0 UJ	µg/L
				WG-37191-072209-033	12 UJ	µg/L
				WG-37191-072209-034	1200 UJ	µg/L
				WG-37191-072209-035	50 UJ	µg/L
				WG-37191-072209-036	120 UJ	µg/L
WG-37191-072209-037	120 UJ	µg/L				

**TABLE 5**  
**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS**  
**SITE INVESTIGATION - SOIL AND GROUNDWATER**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY - JULY 2009**

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Qualified Sample Results</i>	<i>Units</i>
				WG-37191-072209-039	1000 UJ	µg/L
				WG-37191-072209-042	50 UJ	µg/L
VOCs	7/30/09	2-Butanone (Methyl Ethyl Ketone)	40	WG-37191-072109-014	5.0 UJ	µg/L
				WG-37191-072109-015	5.0 UJ	µg/L
				WG-37191-072109-018	5.0 UJ	µg/L
				WG-37191-072109-017	5.0 UJ	µg/L
VOCs	7/30/09	Acetone	43	WG-37191-072109-017	20 UJ	µg/L
				WG-37191-072109-014	20 UJ	µg/L
				WG-37191-072109-015	20 UJ	µg/L
				WG-37191-072109-018	20 UJ	µg/L
VOCs	7/31/09	Acetone	40	WG-37191-072009-001	800 UJ	µg/L
				WG-37191-072009-002	2000 UJ	µg/L
VOCs	7/31/09	Acetone	40	WG-37191-072009-003	11 J	µg/L
				WG-37191-072009-004	20 UJ	µg/L
				WG-37191-072009-005	20 UJ	µg/L
				WG-37191-072009-006	12 J	µg/L
				WG-37191-072009-007	20 UJ	µg/L
				WG-37191-072009-008	20 UJ	µg/L
				WG-37191-072009-010	20 UJ	µg/L
				WG-37191-072009-011	20 UJ	µg/L
				WG-37191-072009-012	20 UJ	µg/L
				WG-37191-072009-013	11 J	µg/L
				WG-37191-072109-016	110 J	µg/L
VOCs	7/30/09	Acetone	44	WG-37191-072009-009	11 J	µg/L
VOCs	7/30/09	Chloroethane	32	WG-37191-072009-009	5.0 UJ	µg/L
VOCs	7/30/09	Chloromethane (Methyl Chloride)	28	WG-37191-072009-009	5.0 UJ	µg/L

TABLE 5

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS  
 SITE INVESTIGATION - SOIL AND GROUNDWATER  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY - JULY 2009

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Qualified Sample Results</i>	<i>Units</i>
VOCs	7/30/09	Dichlorodifluoromethane (CFC-12)	40	WG-37191-072009-009	5.0 UJ	µg/L
VOCs	8/4/09	Methyl acetate	30	WG-37191-072209-031	25 UJ	µg/L
				WG-37191-072209-029	5.0 UJ	µg/L
				WG-37191-072209-030	5.0 UJ	µg/L
				WG-37191-072209-032	5.0 UJ	µg/L
VOCs	8/4/09	Methyl acetate	30	WG-37191-072209-033	12 UJ	µg/L
				WG-37191-072209-034	1200 UJ	µg/L
				WG-37191-072209-035	50 UJ	µg/L
				WG-37191-072209-036	120 UJ	µg/L
				WG-37191-072209-037	120 UJ	µg/L
				WG-37191-072209-039	1000 UJ	µg/L
				WG-37191-072209-042	50 UJ	µg/L
VOCs	6/1/09	1,1,2,2-Tetrachloroethane	29	SO-37191-052709-JJW-001	6.3 UJ	µg/Kg
VOCs	6/4/09	1,1,2,2-Tetrachloroethane	27	SO-37191-052709-JJW-002	290 UJ	µg/Kg
VOCs	6/15/09	1,1,2,2-Tetrachloroethane	29	SO-37191-060809-JJW-010	5.7 UJ	µg/Kg
VOCs	6/4/09	1,2,4-Trichlorobenzene	33	SO-37191-052709-JJW-002	290 UJ	µg/Kg
VOCs	6/4/09	1,2-Dibromo-3-chloropropane (DBCP)	43	SO-37191-052709-JJW-002	290 UJ	µg/Kg
VOCs	6/5/09	1,2-Dibromo-3-chloropropane (DBCP)	28	SO-37191-060109-JJW-003	6.1 UJ	µg/Kg
				SO-37191-060109-JJW-004	6.3 UJ	µg/Kg
				SO-37191-060109-JJW-005	6.1 UJ	µg/Kg
				SO-37191-060209-JJW-006	5.9 UJ	µg/Kg
VOCs	6/10/09	1,2-Dibromo-3-chloropropane (DBCP)	29	SO-37191-060409-JJW-007	6.2 UJ	µg/Kg
VOCs	6/10/09	2-Butanone (Methyl Ethyl Ketone)	35	SO-37191-060409-JJW-007	6.2 UJ	µg/Kg



TABLE 5  
 QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS  
 SITE INVESTIGATION - SOIL AND GROUNDWATER  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY - JULY 2009

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Qualified Sample Results</i>	<i>Units</i>
VOCs	6/18/09	2-Butanone (Methyl Ethyl Ketone)	37	SO-37191-060409-JJW-00840	280 J	µg/Kg
				SO-37191-060409-JJW-00950	280 J	µg/Kg
VOCs	6/1/2009	2-Butanone (Methyl Ethyl Ketone)	27	SO-37191-052709-JJW-001	6.3 UJ	µg/Kg
VOCs	6/5/09	2-Hexanone	32	SO-37191-060109-JJW-003	6.1 UJ	µg/Kg
				SO-37191-060109-JJW-004	6.3 UJ	µg/Kg
				SO-37191-060109-JJW-005	6.1 UJ	µg/Kg
				SO-37191-060209-JJW-006	5.9 UJ	µg/Kg
VOCs	6/10/09	2-Hexanone	26	SO-37191-060409-JJW-007	6.2 UJ	µg/Kg
VOCs	6/18/09	2-Hexanone	75	SO-37191-060409-JJW-008	280 UJ	µg/Kg
				SO-37191-060409-JJW-009	280 UJ	µg/Kg
VOCs	6/1/2009	2-Hexanone	47	SO-37191-052709-JJW-001	6.3 UJ	µg/Kg
VOCs	6/18/09	4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	50	SO-37191-060409-JJW-008	280 UJ	µg/Kg
				SO-37191-060409-JJW-009	280 UJ	µg/Kg
VOCs	6/1/2009	4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	35	SO-37191-052709-JJW-001	6.3 UJ	µg/Kg
VOCs	6/4/09	Acetone	32	SO-37191-052709-JJW-002	1200 UJ	µg/Kg
VOCs	6/5/09	Acetone	34	SO-37191-060109-JJW-003	24 UJ	µg/Kg
				SO-37191-060109-JJW-004	25 UJ	µg/Kg
				SO-37191-060109-JJW-005	24 UJ	µg/Kg
				SO-37191-060209-JJW-006	24 UJ	µg/Kg
VOCs	6/10/09	Acetone	32	SO-37191-060409-JJW-007	25 UJ	µg/Kg
VOCs	6/15/09	Acetone	31	SO-37191-060809-JJW-010	23 UJ	µg/Kg

TABLE 5  
 QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS  
 SITE INVESTIGATION - SOIL AND GROUNDWATER  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY - JULY 2009

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Qualified Sample Results</i>	<i>Units</i>
VOCs	6/18/09	Acetone	64	SO-37191-060409-JJW-008	1100 UJ	µg/Kg
				SO-37191-060409-JJW-009	1100 UJ	µg/Kg
VOCs	6/1/2009	Acetone	34	SO-37191-052709-JJW-00111	25 J	µg/Kg
VOCs	6/5/09	Chloroethane	32	SO-37191-060109-JJW-003	6.1 UJ	µg/Kg
				SO-37191-060109-JJW-004	6.3 UJ	µg/Kg
				SO-37191-060109-JJW-005	6.1 UJ	µg/Kg
				SO-37191-060209-JJW-006	5.9 UJ	µg/Kg
VOCs	6/10/09	Chloroethane	28	SO-37191-060409-JJW-007	6.2 UJ	µg/Kg
VOCs	6/15/09	Chloroethane	27	SO-37191-060809-JJW-010	5.7 UJ	µg/Kg
VOCs	6/5/09	cis-1,3-Dichloropropene	30	SO-37191-060109-JJW-003	6.1 UJ	µg/Kg
				SO-37191-060109-JJW-004	6.3 UJ	µg/Kg
				SO-37191-060109-JJW-005	6.1 UJ	µg/Kg
				SO-37191-060209-JJW-006	5.9 UJ	µg/Kg
VOCs	6/5/09	Dibromochloromethane	26	SO-37191-060109-JJW-003	6.1 UJ	µg/Kg
				SO-37191-060109-JJW-004	6.3 UJ	µg/Kg
				SO-37191-060109-JJW-005	6.1 UJ	µg/Kg
				SO-37191-060209-JJW-006	5.9 UJ	µg/Kg
VOCs	6/15/09	Dichlorodifluoromethane (CFC-12)	29	SO-37191-060809-JJW-010	5.7 UJ	µg/Kg
VOCs	6/18/09	Dichlorodifluoromethane (CFC-12)	34	SO-37191-060409-JJW-008	280 UJ	µg/Kg
				SO-37191-060409-JJW-009	280 UJ	µg/Kg
VOCs	6/4/09	Methyl acetate	48	SO-37191-052709-JJW-002	290 UJ	µg/Kg
VOCs	6/5/09	Methyl acetate	30	SO-37191-060109-JJW-003	6.1 UJ	µg/Kg
				SO-37191-060109-JJW-004	6.3 UJ	µg/Kg

TABLE 5  
 QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS  
 SITE INVESTIGATION - SOIL AND GROUNDWATER  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY - JULY 2009

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Qualified Sample Results</i>	<i>Units</i>
				SO-37191-060109-JJW-005	6.1 UJ	µg/Kg
				SO-37191-060209-JJW-006	5.9 UJ	µg/Kg
VOCs	6/10/09	Methyl acetate	28	SO-37191-060409-JJW-007	6.2 UJ	µg/Kg
VOCs	6/18/09	Methyl acetate	37	SO-37191-060409-JJW-008	280 UJ	µg/Kg
				SO-37191-060409-JJW-009	280 UJ	µg/Kg
VOCs	6/18/09	Trichlorofluoromethane (CFC-11)	29	SO-37191-060409-JJW-008	280 UJ	µg/Kg
				SO-37191-060409-JJW-009	280 UJ	µg/Kg

## Notes:

%D Percent Difference.

J Estimated.

UJ Not detected, estimated reporting limit.

VOCs Volatile Organic Compounds.

TABLE 6

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS  
 SITE INVESTIGATION - SOIL AND GROUNDWATER  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY - JULY 2009

<i>Parameter</i>	<i>Analysis Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>
VOCs	8/4/09	1,2,4-Trichlorobenzene	1.0	WG-37191-072209-029	5.0 U
				WG-37191-072209-032	5.0 U
				WG-37191-072209-033	12 U
VOCs	07/31/09	Toluene	2.4	WG-37191-072009-003	5.0 U
				WG-37191-072009-007	5.0 U
				WG-37191-072009-008	5.0 U
VOCs	6/1-7/3/09	Methylene chloride	2.0	SO-37191-052709-JJW-001	6.3 U
				SO-37191-060109-JJW-003	6.1 U
				SO-37191-060109-JJW-004	6.3 U
				SO-37191-060109-JJW-005	6.1 U
				SO-37191-060209-JJW-006	5.9 U
				SO-37191-060409-JJW-007	6.2 U
				SO-37191-060809-JJW-010	5.7 U
				SO-37191-062209-JJW-011	6.5 U
				SO-37191-062209-JJW-012	6.0 U
				SO-37191-062209-JJW-013	5.5 U

Notes:

- U Not detected.
- VOCs Volatile Organic Compounds.

TABLE 7

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INTERNAL STANDARD (IS) RECOVERIES  
 SITE INVESTIGATION - SOIL AND GROUNDWATER  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY - JULY 2009

<i>Parameter</i>	<i>Sample ID</i>	<i>IS</i>	<i>IS Area Count (percent)</i>	<i>Control Limits (percent)</i>	<i>Analytes</i>	<i>Qualified Sample Results</i>	<i>Units</i>
VOCs	WG-37191-072209-031	1,4-Dichlorobenzene-d4	47	50-200	1,2-Dibromoethane (Ethylene Dibromide)	25 UJ	µg/L
					Bromoform	25 UJ	µg/L
					Chlorobenzene	25 UJ	µg/L
					Dibromochloromethane	25 UJ	µg/L
					Ethylbenzene	25 UJ	µg/L
					Isopropylbenzene	25 UJ	µg/L
					Styrene	25 UJ	µg/L
					Xylene (total)	75 UJ	µg/L


Notes:

- U Not detected.
- VOCs Volatile Organic Compounds.



## MEMORANDUM

TO: Dennis Hoyt REF. NO.: 037191

FROM: Kathy Shaw/lo/1/CT  DATE: March 24, 2009

RE: Data Quality Assessment and Validation  
Supplemental Groundwater Investigation  
Former Buffalo China Site - Buffalo, New York

The following details a quality assessment and validation of the analytical data resulting from the January and March 2009, collection of 17 groundwater and seven (7) quality control samples from the Former Buffalo China 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 TestAmerica in Knoxville, Tennessee (TA) in accordance with the methodologies presented in Table 2.

The Quality Control (QC) criteria used to assess the data were established by the methods and the Quality Assurance Project Plan (QAPP). Summaries of the analytical data are presented in Table 3. Application of quality assurance criteria was consistent with following guidance documents:

- i) "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review", EPA 540/R-99/008, October 1999; and

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

### Sample Quantitation

The laboratory reported any detected concentrations of volatile organic compounds (VOC), observed below the laboratory's report limit (RL) but above the laboratory's method detection limit (MDL) with a flag. The laboratory flagged these sample concentrations with a "J", and 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 analysis was checked at the beginning of each 12-hour period using bromofluorobenzene (BFB). 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 analysis. 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) GC/MS (all compounds) - must meet a minimum mean relative response factor (RRF) of 0.05; and
- ii) GC/MS (all compounds) - 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 and sensitivity.

### 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. The following criteria are employed to evaluate the continuing calibration data:

- i) GC/MS (all compounds) - must meet a minimum mean RRF of 0.05;
- ii) GC/MS (all compounds) - the percent difference between the mean initial calibration RRF and the continuing calibration RRF must not exceed 25 percent; and
- iii) GC/MS (compounds determined by quadratic curve) - 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 exception of the samples outlined in Table 4.

### 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 exception of the samples outlined in Table 5.

### 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 and Matrix Spike/Laboratory Duplicate Analyses (MS/Dup)

To assess the long term accuracy and precision of the analytical methods on various matrices, MS/MSD or MS/Dup 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.

All MS/MSD or MS/Dup recoveries were acceptable indicating good analytical accuracy and precision, with the exception of the samples outlined in Table 6.

### Laboratory Control Sample/Laboratory Control Duplicate Analysis

The laboratory control sample and laboratory control duplicate (LCS/LCD) analyses serve as a monitor of the overall performance in all steps of the sample analysis and are analyzed with each sample batch. The LCS/LCD percent recoveries were evaluated against method and laboratory established control limits. The LCS/LCD percent recoveries were within the laboratory control limits or did not warrant qualification, indicating that an acceptable level of overall performance was achieved.

Laboratory precision was verified by the relative percent difference (RPD) of the LCS/LCD when a matrix spike/matrix spike duplicate was not analyzed. The RPDs were within the laboratory control limits, indicating that an acceptable level of overall laboratory precision was achieved.



### 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 analysis was 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 internal standard data showed that the IS area counts and retention time data were within the acceptance criteria for all samples.

### 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 quality assurance/quality control consisted of two (2) field duplicate sample sets, and five (5) trip blank samples.

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. 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. All field duplicate results were acceptable.

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. The trip blanks submitted to the laboratory for the sampling events occurring January 22, 2009 and January 23, 2009 were received broken. The field cross contamination of compounds could not be assessed for those samples.

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.

**SAMPLE COLLECTION AND ANALYSIS SUMMARY  
SUPPLEMENTAL GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK**

<i>Sample Identification</i>	<i>Sample Location</i>	<i>Matrix</i>	<i>QC Sample</i>	<u><i>Parameter</i></u> TCL VOC
GW-37191-011309-JJW-002	MW-4	Water		X
GW-37191-011309-JJW-003	MW-18	Water		X
GW-37191-011309-JJW-004	MW-18	Water	Duplicate (003)	X
GW-37191-011309-JJW-005	MW-12	Water		X
Trip Blank	-	Water	Trip Blank	X
GW-37191-011909-JJW-006	MW-9	Water		X
GW-37191-011909-JJW-007	MW-9A	Water		X
GW-37191-011909-JJW-008	MW-13A	Water		X
GW-37191-012009-JJW-009	MW-6	Water	MS/MSD	X
GW-37191-012009-JJW-010	MW-17	Water		X
GW-37191-012009-JJW-011	MW-5	Water		X
GW-37191-012009-JJW-012	MW-5A	Water		X
Trip Blank	-	Water	Trip Blank	X
GW-37191-012109-JJW-013	MW-7	Water		X
GW-37191-012109-JJW-014	MW-7A	Water		X
GW-37191-012209-JJW-015	MW-10	Water		X
GW-37191-012209-JJW-016	MW-11	Water		X
GW-37191-012209-JJW-017	MW-11	Water	Duplicate (016)	X
GW-37191-012209-JJW-018	MW-14A	Water		X
Trip Blank*	-	Water	Trip Blank	X
GW-37191-012309-JJW-019	MW-15A	Water	MS/MSD	X
Trip Blank*	-	Water	Trip Blank	X
TB-37191-030509	-	Water	Trip Blank	X
WG-37191-030509-001	MW-8	Water		X

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TCL - Target Compound List

VOC - Volatile Organic Compounds

QC - Quality Control

MS/MSD - Matrix Spike / Matrix Spike Duplicate

\* - These Trip Blank samples were received broken at the lab and could not be analyzed

TABLE 2

SUMMARY OF ANALYTICAL METHODS, HOLDING TIME PERIODS, AND PRESERVATIVES  
SUPPLEMENTAL GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK

<i>Parameter</i>	<i>Method</i>	<i>Matrix</i>	<i>Holding Time</i>	<i>Preservation</i>
TCL VOC	SW-846 8260B	Water	- 14 days from sample collection to completion of analysis.	pH < 2 and Iced, 4 ± 2° C

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SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, 3rd Edition, and Promulgated updates, November 1986

**ANALYTICAL DATA SUMMARY  
SUPPLEMENTAL GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK**

Location ID:	<i>MW-8</i>	<i>TRIP BLANK</i>
Sample Name:	<i>WG-37191-030509-001</i>	<i>TB-37191-030509</i>
Sample Date:	<i>3/5/2009</i>	<i>3/5/2009</i>

	<i>Units</i>		
<i>Volatile Organic Compounds</i>			
1,1,1-Trichloroethane	ug/L	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	5.0 UJ	5.0 UJ
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	5.0 U	57
2-Hexanone	ug/L	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	5.0 U	5.0 U
Acetone	ug/L	20 UJ	20 UJ
Benzene	ug/L	5.0 U	5.0 U
Bromodichloromethane	ug/L	5.0 U	5.0 U
Bromoform	ug/L	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	5.0 U	5.0 U
Carbon disulfide	ug/L	5.0 U	5.0 U
Carbon tetrachloride	ug/L	5.0 U	5.0 U
Chlorobenzene	ug/L	5.0 U	5.0 U
Chloroethane	ug/L	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	5.0 U	5.0 U
cis-1,3-Dichloropropene	ug/L	5.0 U	5.0 U
Cyclohexane	ug/L	5.0 U	5.0 U
Dibromochloromethane	ug/L	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	5.0 U	5.0 U
Ethylbenzene	ug/L	5.0 U	5.0 U
Isopropylbenzene	ug/L	5.0 U	5.0 U
Methyl acetate	ug/L	5.0 U	5.0 U
Methyl cyclohexane	ug/L	5.0 U	5.0 U
Methyl Tert Butyl Ether	ug/L	5.0 U	5.0 U
Methylene chloride	ug/L	5.0 U	5.0 U
Styrene	ug/L	5.0 U	5.0 U
Tetrachloroethene	ug/L	5.0 U	5.0 U
Toluene	ug/L	5.0 U	5.0 U
trans-1,2-Dichloroethene	ug/L	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	5.0 U	5.0 U
Trichloroethene	ug/L	0.97 J	5.0 U
Trichlorofluoromethane (CFC-11)	ug/L	5.0 U	5.0 U
Trifluorotrchloroethane (Freon 113)	ug/L	5.0 U	5.0 U
Vinyl chloride	ug/L	5.0 U	5.0 U
Xylene (total)	ug/L	15 U	15 U

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS  
SUPPLEMENTAL GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK**

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Qualified Sample Results</i>	<i>Units</i>
TCL VOC	1/24/2009	1,2-Dibromo-3-chloropropane	30.44	GW-37191-012009-JJW-009 TRIP BLANK	50 UJ 5.0 UJ	µg/L µg/L
TCL VOC	1/24/2009	2-Butanone	32.81	GW-37191-012009-JJW-009 TRIP BLANK	50 UJ 5.0 UJ	µg/L µg/L
TCL VOC	1/24/2009	2-Hexanone	35.88	GW-37191-012009-JJW-009 TRIP BLANK	50 UJ 5.0 UJ	µg/L µg/L
TCL VOC	1/24/2009	4-Methyl-2-Pentanone	28.34	GW-37191-012009-JJW-009 TRIP BLANK	50 UJ 5.0 UJ	µg/L µg/L
TCL VOC	1/24/2009	Bromomethane	35.11	GW-37191-012009-JJW-009 TRIP BLANK	50 UJ 5.0 UJ	µg/L µg/L
TCL VOC	1/24/2009	Chloroethane	36.55	GW-37191-012009-JJW-009 TRIP BLANK	50 UJ 5.0 UJ	µg/L µg/L
TCL VOC	1/27/2009	Bromomethane	34.76	GW-37191-011909-JJW-006 GW-37191-011909-JJW-007 GW-37191-011909-JJW-008 GW-37191-012009-JJW-010 GW-37191-012009-JJW-011 GW-37191-012009-JJW-012	5.0 UJ 5.0 UJ 2000 UJ 5.0 UJ 25000 UJ 10000 UJ	µg/L µg/L µg/L µg/L µg/L µg/L
TCL VOC	1/27/2009	Chloroethane	38.46	GW-37191-011909-JJW-006 GW-37191-011909-JJW-007 GW-37191-011909-JJW-008 GW-37191-012009-JJW-010 GW-37191-012009-JJW-011 GW-37191-012009-JJW-012	5.0 UJ 5.0 UJ 2000 UJ 5.0 UJ 25000 UJ 10000 UJ	µg/L µg/L µg/L µg/L µg/L µg/L
TCL VOC	1/27/2009	Chloroethane	47.25	TRIP BLANK (1/23/2009)	5.0 UJ	µg/L
TCL VOC	1/27/2009	1,2-Dibromo-3-chloropropane	32.0	GW-37191-011309-JJW-002 GW-37191-011309-JJW-003 GW-37191-011309-JJW-004	100 UJ 25 UJ 50 UJ	µg/L µg/L µg/L

TABLE 4

**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS  
SUPPLEMENTAL GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK**

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Qualified Sample Results</i>	<i>Units</i>
TCL VOC	1/27/2009	2-Butanone	33.2	GW-37191-011309-JJW-005	50 UJ	µg/L
				GW-37191-011309-JJW-002	100 UJ	µg/L
				GW-37191-011309-JJW-003	25 UJ	µg/L
				GW-37191-011309-JJW-004	50 UJ	µg/L
				GW-37191-011309-JJW-005	50 UJ	µg/L
TCL VOC	1/27/2009	2-Hexanone	37.0	GW-37191-011309-JJW-002	100 UJ	µg/L
				GW-37191-011309-JJW-003	25 UJ	µg/L
				GW-37191-011309-JJW-004	50 UJ	µg/L
				GW-37191-011309-JJW-005	50 UJ	µg/L
TCL VOC	1/27/2009	4-Methyl-2-Pentanone	29.6	GW-37191-011309-JJW-002	100 UJ	µg/L
				GW-37191-011309-JJW-003	25 UJ	µg/L
				GW-37191-011309-JJW-004	50 UJ	µg/L
				GW-37191-011309-JJW-005	50 UJ	µg/L
TCL VOC	1/27/2009	Bromomethane	27.8	GW-37191-011309-JJW-002	100 UJ	µg/L
				GW-37191-011309-JJW-003	25 UJ	µg/L
				GW-37191-011309-JJW-004	50 UJ	µg/L
				GW-37191-011309-JJW-005	50 UJ	µg/L
TCL VOC	1/27/2009	Trichlorofluoromethane (CFC-11)	47.6	GW-37191-011309-JJW-002	100 UJ	µg/L
				GW-37191-011309-JJW-003	25 UJ	µg/L
				GW-37191-011309-JJW-004	50 UJ	µg/L
				GW-37191-011309-JJW-005	50 UJ	µg/L
TCL VOC	3/11/2009	1,2-Dibromo-3-chloropropane	32.9	TB-37191-030509	5.0 UJ	µg/L
				WG-37191-030509-001	5.0 UJ	µg/L
TCL VOC	3/11/2009	Acetone	33.5	TB-37191-030509	20 UJ	µg/L
				WG-37191-030509-001	20 UJ	µg/L

Notes:

UJ - Estimated Report Limit

TABLE 5

**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS  
SUPPLEMENTAL GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK**

<i>Parameter</i>	<i>Analysis Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
TCL VOC	1/28/2009	Toluene	1.1	GW-37191-012109-JJW-014	5.0 U	µg/L
				GW-37191-012309-JJW-019	5.0 U	µg/L
TCL VOC	1/28/2009	Xylenes (total)	3.4	GW-37191-012109-JJW-014	15 U	µg/L
				GW-37191-012209-JJW-015	15 U	µg/L
				GW-37191-012309-JJW-019	15 U	µg/L
TCL VOC	1/29/2009	Xylenes (total)	3.3	GW-37191-012109-JJW-013	15 U	µg/L
				GW-37191-012209-JJW-018	15 U	µg/L
TCL VOC	1/27/2009	Xylenes (total)	3.5	GW-37191-011309-JJW-004	150 U	µg/L
				GW-37191-011309-JJW-005	150 U	µg/L

Notes:

U - Qualified as Not Detected



TABLE 6

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES  
 SUPPLEMENTAL GROUNDWATER INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK

<i>Parameter</i>	<i>Associated Sample ID</i>	<i>Analyte</i>	<i>MS Recovery (percent)</i>	<i>MSD Recovery (percent)</i>	<i>RPD</i>	<i>Control Limits</i>		<i>Qualified Sample Result</i>	<i>Units</i>
						<i>Recovery (percent)</i>	<i>RPD (percent)</i>		
TCL VOC	GW-37191-012009-JJW-009	Trichloroethene	71	77	3.1	80-120	20	450 J	µg/L

Notes:

J - Estimated Concentration



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## MEMORANDUM

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TO: Chris Barton REF. NO.: 037191

FROM: Angela Bown/bjw/3-NF *AB/lejw* DATE: October 24, 2008

CC: Susan Scrocchi E-Mail and Hard Copy if Requested

RE: **Analytical Results and QA/QC Review  
Site Investigation-Resample  
Former Buffalo China Site  
Buffalo, New York  
September 2008**

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The following details a quality assessment and validation of the analytical data resulting from the September 2008 collection of two (2) groundwater samples and one trip blank from the Former Buffalo China Site in Buffalo, New York. The sample summary detailing sample identification, sample location, quality control (QC) samples and analytical parameters is presented in Table 1. Sample analysis was completed at TestAmerica Laboratories (TA), in Pittsburgh, Pennsylvania, in accordance with the methodologies presented in Table 2. A summary of the analytical results is presented in Table 3.

The QC criteria used to assess the data were established by the methods and with the 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 organic compounds and metals 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) – Volatile Organic Compounds (VOCs)

To ensure adequate mass resolution, identification, and to some degree, sensitivity; the performance of each GC/MS instrument used for VOC analysis was checked at the beginning of each 12-hour period using bromofluorobenzene (BFB). 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 analyses. The results of all instrument performance checks were within the acceptance criteria, indicating acceptable instrument performance.

GC/MS Initial Calibration – VOCs

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 ( $R^2$ ) 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 sensitivity and linearity.

GC/MS Continuing Calibration – VOCs

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. 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 with the exception of the sample data presented with qualifiers in Table 4.

### 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. The coefficient of variation for calibration curves must exceed 0.995.

Initial calibration is verified with an initial calibration verification (ICV) standard which must recover within 90 to 110 percent for metals by ICP.

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 ten (10) samples). The CCVs must meet the percent recovery control limits specified above for the ICVs.

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/Laboratory 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.

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.

Method blanks and ICB/CCBs were analyzed at the recommended frequency and the results were non-detect for all analytes of interest.

### 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 and RPDs were acceptable indicating acceptable laboratory performance.

### Laboratory Control Sample (LCS)

The LCS analysis serves as a monitor of the overall performance in all steps of the sample analysis and is analyzed with each sample batch. The LCS percent recoveries were evaluated against method and laboratory established control limits. Some LCS analyses were performed in duplicate to monitor laboratory precision.

The LCS percent recoveries were all within the laboratory control limits indicating acceptable analytical accuracy and precision (where applicable).

### 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 analysis 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 internal standard data showed that the IS area counts and RT data were within the acceptance criteria for all VOC samples.

### ICP Interference Check Standard (ICS) Analyses - Inorganic Analyses

To verify that proper inter-element and background correction factors had been established by the laboratory for metals analyses, the ICP ICSs are analyzed. These samples contain high concentrations of aluminum, calcium, magnesium, and iron and are analyzed at the beginning and end of each sample analysis period. The ICSs are evaluated against recovery control limits of 80 to 120 percent and +/- the reporting limit (RL).

The ICS analysis results were evaluated for all samples and were within the control limits with the exception of lead which exceeded the +/- RL criteria with a high bias. No qualification of the data was necessary because all sample results for lead were non-detect.

### 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 were met.

### Target Compound Identification

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound RT 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 trip blank.

#### Trip Blanks

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 herein.

TABLE 1  
 SAMPLE COLLECTION AND ANALYSIS SUMMARY  
 SITE INVESTIGATION-RESAMPLE  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 SEPTEMBER 2008

<i>Sample ID</i>	<i>Location ID</i>	<i>Collection Date (mm/dd/yy)</i>	<i>Collection Time (hr:min)</i>	<u><i>Analysis/Parameters</i></u>		
				<i>VOCs</i>	<i>Lead</i>	<i>Dissolved Lead</i>
WG-37191-091908-001	MW-11	09/19/08	8:30	X	X	X
WG-37191-091908-002	MW-10	09/19/08	9:45	X	X	X
TB-37191-091908	TRIP BLANK	09/19/08	-	X		

Note:  
 VOCs Volatile Organic Compounds.

TABLE 2  
SUMMARY OF ANALYTICAL METHODS  
SITE INVESTIGATION-RESAMPLE  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
SEPTEMBER 2008

<i>Parameter</i>	<i>Method</i> <sup>1</sup>
<i>Groundwater</i>	
TCL VOCs	SW-846 8260B
Total & Dissolved Lead	SW-846 6010

## Notes:

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

TCL Target Compound List.

VOCs Volatile Organic Compounds.



ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION-RESAMPLE  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
SEPTEMBER 2008

	<i>Location Name:</i>	<i>MW-10</i>	<i>MW-11</i>	<i>TRIP BLANK</i>
	<i>Sample Name:</i>	<i>WG-37191-091908-002</i>	<i>WG-37191-091908-001</i>	<i>TB-37191-091908</i>
	<i>Sample Date:</i>	<i>9/19/2008</i>	<i>9/19/2008</i>	<i>9/19/2008</i>
	<i>Sample Type:</i>	<i>(Orig.)</i>	<i>(Orig.)</i>	<i>(Orig.)</i>
<i>Parameters</i>	<i>Units</i>			
<i>Metals</i>				
Lead	µg/L	3.0 U	3.0 U	--
Lead (Dissolved)	µg/L	3.0 U	3.0 U	--
<i>VOAs</i>				
1,1,1-Trichloroethane	µg/L	5.0 U	250 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	250 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	250 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	250 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	250 U	5.0 U
1,2,4-Trichlorobenzene	µg/L	5.0 U	250 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	µg/L	5.0 U	250 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/L	5.0 UJ	250 UJ	5.0 U
1,2-Dichlorobenzene	µg/L	5.0 U	250 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	250 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	250 U	5.0 U
1,3-Dichlorobenzene	µg/L	5.0 U	250 U	5.0 U
1,4-Dichlorobenzene	µg/L	5.0 U	250 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	µg/L	5.0 U	250 U	5.0 U
2-Hexanone	µg/L	5.0 U	250 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/L	5.0 U	250 U	5.0 U
Acetone	µg/L	20 U	1000 U	20 U
Benzene	µg/L	5.0 U	250 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	250 U	5.0 U
Bromoform	µg/L	5.0 U	250 U	5.0 U
Bromomethane (Methyl Bromide)	µg/L	5.0 U	250 U	5.0 U
Carbon disulfide	µg/L	5.0 U	250 U	5.0 U
Carbon tetrachloride	µg/L	5.0 U	250 U	5.0 U
Chlorobenzene	µg/L	5.0 U	250 U	5.0 U
Chloroethane	µg/L	5.0 U	250 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	250 U	5.0 U
Chloromethane (Methyl Chloride)	µg/L	5.0 U	250 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	3500	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	250 U	5.0 U
Cyclohexane	µg/L	3.6 J	250 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	250 U	5.0 U
Dichlorodifluoromethane (CFC-12)	µg/L	5.0 U	250 U	5.0 U
Ethylbenzene	µg/L	5.0 U	250 U	5.0 U
Isopropylbenzene	µg/L	5.0 U	250 U	5.0 U
Methyl acetate	µg/L	5.0 UJ	250 UJ	5.0 U
Methyl cyclohexane	µg/L	3.7 J	250 U	5.0 U
Methyl Tert Butyl Ether	µg/L	5.0 U	250 U	5.0 U
Methylene chloride	µg/L	5.0 U	250 U	5.0 U
Styrene	µg/L	5.0 U	250 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	250 U	5.0 U
Toluene	µg/L	5.0 U	250 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	250 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	250 U	5.0 U
Trichloroethene	µg/L	5.0 U	1700	5.0 U
Trichlorofluoromethane (CFC-11)	µg/L	5.0 U	250 U	5.0 U
Trifluorotrchloroethane (Freon 113)	µg/L	5.0 U	250 U	5.0 U
Vinyl chloride	µg/L	5.0 U	250 U	5.0 U
Xylene (total)	µg/L	2.5 J	750 U	15 U

## Notes:

- Not analyzed.
- J Estimated
- U Not detected.
- UJ Not detected, estimated reporting limit.
- VOAs Volatile Organic Analytes.

TABLE 4  
 QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS  
 SITE INVESTIGATION-RESAMPLE  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 SEPTEMBER 2008

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Qualified Sample Results</i>	<i>Units</i>
Volatiles	09/23/08	1,2-Dibromoethane (Ethylene Dibromide)	27	WG-37191-091908-001	250 UJ	µg/L
				WG-37191-091908-002	5.0 UJ	µg/L
Volatiles	09/23/08	Methyl acetate	40	WG-37191-091908-001	250 UJ	µg/L
				WG-37191-091908-002	5.0 UJ	µg/L

## Notes:

%D Percent Difference.

UJ Not detected, estimated reporting limit.



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## MEMORANDUM

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TO: Chris Barton

REF. NO.: 037191

FROM: Susan Scrocchi/cs/4-NF *SCS*

DATE: October 29, 2008

E-Mail and Hard Copy if Requested

RE: **Analytical Results and QA/QC Review  
Site Investigation-Soil  
Former Buffalo China Site  
Buffalo, New York  
August 2008**

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The following details a quality assessment and validation of the analytical data resulting from the August 2008 collection of soil samples from the Former Buffalo China Site in Buffalo, New York. The sample summary detailing sample identification, sample location, quality control (QC) samples and analytical parameters is presented in Table 1. Sample analysis was completed at TestAmerica Laboratories (TA), in Pittsburgh, Pennsylvania, in accordance with the methodologies presented in Table 2. A summary of the analytical results is presented in Table 3.

The QC criteria used to assess the data were established by the methods and with the guidance document: "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 metals and cyanide 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 "B". 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.

### 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. Mercury analysis by cold vapor atomic absorption spectroscopy (CVAA) and cyanide analysis by spectrophotometry require the analysis of a calibration blank and a minimum of five standards to establish the calibration curve. The coefficient of variation for calibration curves must exceed 0.995.

Initial calibration is verified with an initial calibration verification (ICV) standard which must recover within 90 to 110 percent for metals by ICP and 80 to 120 percent for mercury by CVAA and 85 to 115 percent for cyanide by spectrophotometry.

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/Laboratory 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.

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.

Method blanks and ICB/CCBs were analyzed at the recommended frequency. Various metals and cyanide were observed at low concentrations. All associated sample results within five times the blank concentrations were qualified as non-detect (see Table 4).

### 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 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 and RPDs were acceptable indicating acceptable laboratory performance.

#### Laboratory Control Sample (LCS)

The LCS analysis serves as a monitor of the overall performance in all steps of the sample analysis and is 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.

#### ICP Interference Check Standard (ICS) Analyses - Inorganic Analyses

To verify that proper inter-element and background correction factors had been established by the laboratory for metals analyses, the ICP ICSs are analyzed. These samples contain high concentrations of aluminum, calcium, magnesium, and iron and are analyzed at the beginning and end of each sample analysis period. The ICSs are evaluated against recovery control limits of 80 to 120 percent and +/- the reporting limit (RL).

The ICS analysis results were evaluated for all samples and were within the control limits with the exception of lead which exceeded the +/- RL criteria with a high bias. No qualification of the data was necessary because all sample results for lead were non-detect.

#### 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 were met.

#### Field Quality Assurance/Quality Control (QA/QC)

The field QA/QC consisted of one field duplicate sample set.

#### Field Duplicates

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 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 two times for soil/sediment.

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

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 herein.

**TABLE 1**  
**SAMPLE COLLECTION AND ANALYSIS SUMMARY**  
**SITE INVESTIGATION-SOIL**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**AUGUST 2008**

Sample I.D.	Location I.D.	Collection Date (mm/dd/yy)	Collection Time (hr:min)	Start Depth (ft bgs)	End Depth□ (ft bgs)	Analysis/Parameters			Comments
						TAL Metals	Lead	Cyanide	
SS-37191-081308-CB-001	SS-17	8/13/2008	8:45	0	0.17	X		X	
SS-37191-081308-CB-002	SS-17	8/13/2008	8:50	0.17	0.33	X		X	
SS-37191-081308-CB-003	SS-18	8/13/2008	8:55	0	0.17	X		X	
SS-37191-081308-CB-004	SS-18	8/13/2008	9:00	0.17	0.33	X		X	
SS-37191-081308-CB-005	SS-19	8/13/2008	9:05	0	0.17		X		
SS-37191-081308-CB-006	SS-19	8/13/2008	9:10	0.17	0.33		X		
SS-37191-081308-CB-007	SS-20	8/13/2008	9:15	0	0.17	X		X	
SS-37191-081308-CB-008	SS-20	8/13/2008	9:20	0.17	0.33	X		X	
SS-37191-081308-CB-009	SS-21	8/13/2008	9:25	0	0.17		X		
SS-37191-081308-CB-010	SS-21	8/13/2008	9:30	0.17	0.33		X		
SS-37191-081308-CB-011	SS-22	8/13/2008	9:35	0	0.17		X		
SS-37191-081308-CB-012	SS-22	8/13/2008	9:40	0.17	0.33		X		
SS-37191-081308-CB-013	SS-23	8/13/2008	9:45	0	0.17		X		
SS-37191-081308-CB-014	SS-23	8/13/2008	9:50	0.17	0.33		X		
SS-37191-081308-CB-015	SS-24	8/13/2008	9:55	0	0.17	X		X	
SS-37191-081308-CB-016	SS-24	8/13/2008	10:00	0.17	0.33	X		X	
SS-37191-081308-CB-017	SS-25	8/13/2008	10:05	0	0.17	X		X	
SS-37191-081308-CB-018	SS-25	8/13/2008	10:10	0.17	0.33	X		X	
SS-37191-081308-CB-019	SS-25	8/13/2008	10:15	0.17	0.33	X		X	Field duplicate of SS-37191-081308-CB-018

TABLE 2  
SUMMARY OF ANALYTICAL METHODS  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
AUGUST 2008

<i>Parameter</i>	<i>Method</i> <sup>1</sup>
TAL Metals	SW-846 6010/7471
Lead	SW-846 6010
Cyanide	SW-846 9012

## Notes:

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

TAL Target Analyte List.



TABLE 3

ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION-SOIL  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
AUGUST 2008

Location ID:	SS-17	SS-17	SS-18	SS-18	SS-19	SS-19	SS-20
Sample Name:	SS-37191-081308-CB-001	SS-37191-081308-CB-002	SS-37191-081308-CB-003	SS-37191-081308-CB-004	SS-37191-081308-CB-005	SS-37191-081308-CB-006	SS-37191-081308-CB-007
Sample Date:	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008
Depth:	0 - 0.17 ft	0.17 - 0.33 ft	0 - 0.17 ft	0.17 - 0.33 ft	0 - 0.17 ft	0.17 - 0.33 ft	0 - 0.17 ft
<i>Units</i>							
<i>Metals</i>							
Aluminum	mg/kg	10600	10200	8810	9080	--	6280
Antimony	mg/kg	0.68 J	1.0 J	0.63 J	0.75 J	--	0.81 J
Arsenic	mg/kg	11.8	11.4	11.4	11.7	--	11.0
Barium	mg/kg	115	112	85.0	82.8	--	89.3
Beryllium	mg/kg	0.67	0.63	0.65	0.66	--	0.54
Cadmium	mg/kg	1.1	1.1	0.84	0.85	--	1.3
Calcium	mg/kg	5130	4510	4930	4570	--	36200
Chromium Total	mg/kg	22.5	21.7	20.1	18.9	--	20.1
Cobalt	mg/kg	8.4	8.0	6.9	7.0	--	5.2 J
Copper	mg/kg	45.5	44.6	35.2	34.6	--	37.6
Iron	mg/kg	26700	25800	23600	23900	--	22800
Lead	mg/kg	251	244	122	122	356	163
Magnesium	mg/kg	3320	3130	3040	3030	--	6110
Manganese	mg/kg	433	393	394	395	--	385
Mercury	mg/kg	0.22	0.26	0.12	0.15	--	0.16
Nickel	mg/kg	24.8	23.9	21.5	21.5	--	18.2
Potassium	mg/kg	1420	1230	975	908	--	1020
Selenium	mg/kg	1.2	1.0	0.94	1.1	--	0.70
Silver	mg/kg	0.76 U	0.67 U	0.66 U	0.64 U	--	0.67 U
Sodium	mg/kg	757 U	673 U	41.9 J	203 J	--	668 U
Thallium	mg/kg	1.5 U	1.3 U	1.3 U	1.3 U	--	1.3 U
Vanadium	mg/kg	23.5	23.0	20.9	21.1	--	19.9
Zinc	mg/kg	313	306	222	216	--	277
<i>Wet</i>							
Cyanide (total)	mg/kg	0.76 U	0.67 U	0.66 U	0.64 U	--	0.67 U
Total Solids	%	66.1	74.3	75.2	77.9	63.7	66.4

TABLE 3

ANALYTICAL RESULTS SUMMARY  
 SITE INVESTIGATION-SOIL  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 AUGUST 2008

Location ID:	SS-20	SS-21	SS-21	SS-22	SS-22	SS-22	SS-23	SS-23
Sample Name:	SS-37191-081308-CB-008	SS-37191-081308-CB-009	SS-37191-081308-CB-010	SS-37191-081308-CB-011	SS-37191-081308-CB-012	SS-37191-081308-CB-013	SS-37191-081308-CB-014	SS-37191-081308-CB-014
Sample Date:	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008
Depth:	0.17 - 0.33 ft	0 - 0.17 ft	0.17 - 0.33 ft	0 - 0.17 ft	0.17 - 0.33 ft	0 - 0.17 ft	0 - 0.17 ft	0.17 - 0.33 ft
<i>Units</i>								
<i>Metals</i>								
Aluminum	mg/kg	6160	--	--	--	--	--	--
Antimony	mg/kg	0.88 J	--	--	--	--	--	--
Arsenic	mg/kg	10.4	--	--	--	--	--	--
Barium	mg/kg	88.3	--	--	--	--	--	--
Beryllium	mg/kg	0.51 J	--	--	--	--	--	--
Cadmium	mg/kg	1.3	--	--	--	--	--	--
Calcium	mg/kg	51800	--	--	--	--	--	--
Chromium Total	mg/kg	19.8	--	--	--	--	--	--
Cobalt	mg/kg	5.1 J	--	--	--	--	--	--
Copper	mg/kg	35.7	--	--	--	--	--	--
Iron	mg/kg	21700	--	--	--	--	--	--
Lead	mg/kg	159	17.5	16.6	160	158	163	151
Magnesium	mg/kg	6630	--	--	--	--	--	--
Manganese	mg/kg	391	--	--	--	--	--	--
Mercury	mg/kg	0.17	--	--	--	--	--	--
Nickel	mg/kg	17.7	--	--	--	--	--	--
Potassium	mg/kg	919	--	--	--	--	--	--
Selenium	mg/kg	0.72	--	--	--	--	--	--
Silver	mg/kg	0.66 U	--	--	--	--	--	--
Sodium	mg/kg	660 U	--	--	--	--	--	--
Thallium	mg/kg	1.3 U	--	--	--	--	--	--
Vanadium	mg/kg	19.9	--	--	--	--	--	--
Zinc	mg/kg	263	--	--	--	--	--	--
<i>Wet</i>								
Cyanide (total)	mg/kg	0.66 U	--	--	--	--	--	--
Total Solids	%	75.8	76.5	81.7	70.3	73.6	78.1	82.9

TABLE 3  
ANALYTICAL RESULTS SUMMARY  
SITE INVESTIGATION-SOIL  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
AUGUST 2008

Location ID:	SS-24	SS-24	SS-25	SS-25	SS-25	
Sample Name:	SS-37191-081308-CB-015	SS-37191-081308-CB-016	SS-37191-081308-CB-017	SS-37191-081308-CB-018	SS-37191-081308-CB-019	
Sample Date:	8/13/2008	8/13/2008	8/13/2008	8/13/2008	8/13/2008	
Depth:	0 - 0.17 ft	0.17 - 0.33 ft	0 - 0.17 ft	0.17 - 0.33 ft	0.17 - 0.33 ft (Field Duplicate)	
<i>Units</i>						
<i>Metals</i>						
Aluminum	mg/kg	6390	6240	8570	9590	7760
Antimony	mg/kg	0.75 J	0.77 J	0.88 J	1.4 J	0.58 J
Arsenic	mg/kg	7.6	7.7	10.5	12.4	9.8
Barium	mg/kg	58.6	54.5	111	124	99.5
Beryllium	mg/kg	0.45 J	0.44 J	0.58 J	0.66 J	0.52
Cadmium	mg/kg	0.70	0.81	1.1	1.2	0.95
Calcium	mg/kg	28400	43000	10600	14000	11100
Chromium Total	mg/kg	12.5	12.1	19.5	22.2	17.8
Cobalt	mg/kg	5.9 J	5.9 J	6.6 J	7.5 J	6.0
Copper	mg/kg	29.9	29.5	54.1	58.5	45.4
Iron	mg/kg	17800	17600	24600	26800	21100
Lead	mg/kg	116	123	283	309	242
Magnesium	mg/kg	10600	10800	4710	6050	4470
Manganese	mg/kg	356	348	354	473	349
Mercury	mg/kg	0.085	0.083	0.22	0.28	0.22
Nickel	mg/kg	17.0	16.8	20.1	22.2	17.8
Potassium	mg/kg	982	832	1510	1670	1210
Selenium	mg/kg	0.65 U	0.62 U	0.83	1.1	0.67
Silver	mg/kg	0.65 U	0.62 U	0.75 U	0.89 U	0.58 U
Sodium	mg/kg	646 U	37.3 J	29.2 J	40.8 J	18.1 J
Thallium	mg/kg	1.3 U	1.2 U	1.5 U	1.8 U	1.2 U
Vanadium	mg/kg	16.5	16.1	21.9	24.4	19.1
Zinc	mg/kg	222	217	276	305	224
<i>Wet</i>						
Cyanide (total)	mg/kg	0.65 U	0.62 U	0.75 U	0.89 U	0.58 U
Total Solids	%	77.4	81.3	66.4	56.5	86.0

## Notes:

- Not analyzed.
- J Estimated.
- U Not detected.

TABLE 4  
 QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS  
 SITE INVESTIGATION-SOIL  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 AUGUST 2008

<i>Parameter</i>	<i>Analysis Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
General Chemistry	08/21/08	Cyanide (total)	0.18	SS-37191-081308-CB-001	0.76 U	mg/kg
			0.16	SS-37191-081308-CB-002	0.67 U	mg/kg
			0.16	SS-37191-081308-CB-003	0.66 U	mg/kg
			0.15	SS-37191-081308-CB-004	0.64 U	mg/kg
			0.16	SS-37191-081308-CB-007	0.67 U	mg/kg
			0.16	SS-37191-081308-CB-008	0.66 U	mg/kg
			0.16	SS-37191-081308-CB-015	0.65 U	mg/kg
			0.15	SS-37191-081308-CB-016	0.62 U	mg/kg
			0.18	SS-37191-081308-CB-017	0.75 U	mg/kg
			0.21	SS-37191-081308-CB-018	0.89 U	mg/kg
		0.14	SS-37191-081308-CB-019	0.58 U	mg/kg	
Metals	09/03/08	Thallium	0.56	SS-37191-081308-CB-001	1.5 U	mg/kg
			0.50	SS-37191-081308-CB-002	1.3 U	mg/kg
			0.49	SS-37191-081308-CB-003	1.3 U	mg/kg
			0.46	SS-37191-081308-CB-016	1.2 U	mg/kg
			0.43	SS-37191-081308-CB-019	1.2 U	mg/kg

## Notes:

mg/kg Milligrams per Kilogram

U Non-detect at associated value



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## MEMORANDUM

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TO: Chris Barton REF. NO.: 037191

FROM: Angela Bown/bjw/2-NF *AB/bjw* DATE: June 23, 2008

CC: Susan Scrocchi E-Mail and Hard Copy if Requested

RE: **Analytical Results and QA/QC Review  
Site Investigation  
Former Buffalo China Site  
Buffalo, New York  
May 2008**

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The following details a quality assessment and validation of the analytical data resulting from the May 2008 collection of 36 soil samples including one field duplicate and 10 groundwater samples including 2 field duplicates and one trip blank from the Former Buffalo China Site in Buffalo, New York. The sample summary detailing sample identification, sample location, quality control (QC) samples and analytical parameters is presented in Table 1. Sample analysis was completed at TestAmerica Laboratories (TA), in Pittsburgh, Pennsylvania, in accordance with the methodologies presented in Table 2. A summary of the analytical results is presented in Table 3A and Table 3B.

The QC criteria used to assess the data were established by the methods and with the 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 organic compounds and metals 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) – Volatile Organic Compounds (VOCs) and Semi-Volatile Organic Compounds (SVOCs)

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.

GC/MS Initial Calibration – VOCs and SVOCs

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 ( $R^2$ ) 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 sensitivity and linearity.

GC/MS Continuing Calibration – VOCs and SVOCs

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. 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 with the exception of the sample data presented with qualifiers in Table 4.

### GC Initial Calibration – Pesticides, Herbicides, and Polychlorinated Biphenyls (PCBs)

To quantify compounds of interest, calibration of the GC over a specific concentration range must be performed. Initially, five-point calibration curves are analyzed for all the pesticides and herbicides of interest. PCB calibration curves are analyzed for Aroclors 1016 and 1260 only. A single point calibration is performed for the remaining Aroclors of interest.

Linearity of the calibration curves are acceptable if percent %RSD values are less than or equal to 20 percent or if the coefficient of determination ( $R^2$ ) is greater than 0.99. Retention time (RT) windows are also calculated from the initial calibration analyses. These windows are then used to identify all compounds of interest in subsequent analyses.

Initial calibration standards were analyzed at the required frequencies. All RT and linearity criteria were met with the exception of certain compounds for herbicides. Table 5 presents the data that were qualified due to outlying initial calibration criteria.

### GC Continuing Calibration – Pesticides, Herbicides and PCBs

To ensure that the calibration of the instrument is valid throughout the sample analysis period, continuing calibration standards are analyzed and evaluated on a regular basis. To evaluate the continued linearity of the calibration, %D values are calculated for each compound in all continuing standards and assessed against an acceptance criterion of 15 percent.

To ensure that compound RTs do not vary over the analysis period, all RTs must fall within the established RT windows.

Continuing calibration standards were analyzed at the required frequency, and all method criteria were met for analyte linearity.

### 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. Mercury analysis by cold vapor atomic absorption spectroscopy (CVAA) and cyanide analysis by spectrophotometry require the analysis of a calibration blank and a minimum of five standards to establish the calibration curve. The coefficient of variation for calibration curves must exceed 0.995.

Initial calibration is verified with an initial calibration verification (ICV) standard which must recover within 90 to 110 percent for metals by ICP and 80 to 120 percent for mercury by CVAA and 85 to 115 percent for cyanide by spectrophotometry.

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/Laboratory 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.

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.

Method blanks and ICB/CCBs were analyzed at the recommended frequency and the results were non-detect for all analytes of interest with the exception of the sample data presented with qualifiers in Table 6. All associated positive sample results with similar concentrations were qualified as 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 the sample data presented with qualifiers in 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 is analyzed with each sample batch. The LCS percent recoveries were evaluated against method and laboratory established control limits. Some LCS analyses were performed in duplicate to monitor laboratory precision.

The LCS percent recoveries were all within the laboratory control limits indicating acceptable analytical accuracy and precision (where applicable).

### 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 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 RT data were within the acceptance criteria for all VOC and SVOC samples.

### ICP Interference Check Standard (ICS) Analyses – Inorganic Analyses

To verify that proper inter-element and background correction factors had been established by the laboratory for metals analyses, the ICP ICSs are analyzed. These samples contain high concentrations of aluminum, calcium, magnesium, and iron and are analyzed at the beginning and end of each sample analysis period. The ICSs are evaluated against recovery control limits of 80 to 120 percent and +/- the reporting limit (RL).

The ICS analysis results were evaluated for all samples and were within the control limits with the exception of lead and cadmium which exceeded the +/- RL criteria. Table 8 presents the data that were qualified due to outlying ICSs.

### 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 were met for all metals with the exception of the data presented with qualifiers in Table 9.

### Target Compound Identification

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound RT 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 three (3) field duplicate sample sets and one trip blank.

#### Field Duplicates

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.

#### Trip Blanks

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.

### Dual Column Analysis

Pesticide analyses were performed using dual column analyses. In general, the pesticide results showed good correlation between the two columns. Variability was observed between some of the results. The associated data were qualified as estimated to reflect the implied variability or were qualified as non-detects if the original result was less than the RL and the % difference between columns was greater than 50%. Table 10 presents the data that were qualified due to variability between columns.

### 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 herein.

**TABLE 1**  
**SAMPLE COLLECTION AND ANALYSIS SUMMARY**  
**SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY 2008**

Sample ID	Location ID	Start Depth (ft bgs)	End Depth (ft bgs)	Collection Date (mm/dd/yy)	Collection Time (hr:min)	Analysis/Parameters											Comments				
						Total TAL Metals (less Al, Cu, Fe, Mg, K, & Na)	Dissolved TAL Metals (less Al, Ca, Fe, Mg, K, & Na)	Mercury	Dissolved Mercury	Cyanide	Lead	Dissolved Lead	TCL VOCs	TCL SVOCs	PCBs	TCL Pesticides		Herbicides			
SS-37191-050708-CMB-001	148MiltonSt	0	0.17	05/07/08	9:15																MS/MSD
SS-37191-050708-CMB-002	148MiltonSt	0.15	0.33	05/07/08	9:20																
SS-37191-050708-CMB-003	138HarrisonSt	0	0.17	05/07/08	9:45																
SS-37191-050708-CMB-004	138HarrisonSt	0.15	0.33	05/07/08	9:50																
SS-37191-050708-CMB-005	103HarrisonSt	0	0.17	05/07/08	10:05	X		X		X											
SS-37191-050708-CMB-006	103HarrisonSt	0.15	0.33	05/07/08	10:10	X		X		X											
SS-37191-050708-CMB-007	36LesterSt	0	0.17	05/07/08	10:45																MS/MSD
SS-37191-050708-CMB-008	36LesterSt	0	0.17	05/07/08	10:50																Field Duplicate of SS-37191-050708-CMB-007
SS-37191-050708-CMB-009	36LesterSt	0.15	0.33	05/07/08	10:55																
SS-37191-050708-CMB-010	22LesterSt	0	0.17	05/07/08	11:00																
SS-37191-050708-CMB-011	22LesterSt	0.15	0.33	05/07/08	11:05																
SS-37191-050708-CMB-012	20HayesPl	0	0.17	05/07/08	11:15																
SS-37191-050708-CMB-013	20HayesPl	0.15	0.33	05/07/08	11:20																
SS-37191-050708-CMB-014	34HayesPl-S	0	0.17	05/07/08	11:30																
SS-37191-050708-CMB-015	34HayesPl-S	0.15	0.33	05/07/08	11:35																
SS-37191-050708-CMB-016	34HayesPl-N	0	0.17	05/07/08	11:40																
SS-37191-050708-CMB-017	34HayesPl-N	0.15	0.33	05/07/08	11:45																
SS-37191-050708-CMB-018	51HayesPlSoilMound	0	0.17	05/07/08	11:55																
SS-37191-050708-CMB-019	51HayesPlSoilMound	0.15	0.33	05/07/08	12:00																
SS-37191-050708-CMB-020	NECrnrHarrisonStWare	0	0.17	05/07/08	12:05																
SS-37191-050708-CMB-021	NECrnrHarrisonStWare	0.15	0.33	05/07/08	12:10																
SS-37191-050708-CMB-022	WEndHarrisonStWare	0	0.17	05/07/08	12:15																
SS-37191-050708-CMB-023	WEndHarrisonStWare	0.15	0.33	05/07/08	12:20																
SS-37191-050808-CMB-001	55LesterSt-N	0	0.17	05/08/08	9:40																
SS-37191-050808-CMB-002	55LesterSt-N	0.15	0.33	05/08/08	9:45																
SS-37191-050808-CMB-003	55LesterSt-S	0	0.17	05/08/08	9:50																
SS-37191-050808-CMB-004	55LesterSt-S	0.15	0.33	05/08/08	9:55																
SS-37191-050808-CMB-005	58LesterSt	0	0.17	05/08/08	10:30																
SS-37191-050808-CMB-006	58LesterSt	0.15	0.33	05/08/08	10:35																
SS-37191-050808-CMB-007	127HarrisonStBack	0	0.17	05/08/08	11:30																
SS-37191-050808-CMB-008	127HarrisonStBack	0.15	0.33	05/08/08	11:35																
SS-37191-050808-CMB-009	127HarrisonStFront	0	0.17	05/08/08	11:40																
SS-37191-050808-CMB-010	127HarrisonStFront	0.15	0.33	05/08/08	11:45																
SB-37191-050808-JP-011	SB-20-08/MW-14	0	2	05/08/08	16:50	X		X		X				X	X	X	X	X	X	X	

**TABLE 1**  
**SAMPLE COLLECTION AND ANALYSIS SUMMARY**  
**SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY 2008**

Sample ID	Location ID	Start Depth (ft bgs)	End Depth (ft bgs)	Collection Date (mm/dd/yy)	Collection Time (hr:min)	Analysis/Parameters											Comments	
						Total TAL Metals (less Al, Ca, Fe, Mg, K, & Na)	Dissolved TAL Metals (less Al, Ca, Fe, Mg, K, & Na)	Mercury	Dissolved Mercury	Cyanide	Lead	Dissolved Lead	TCL VOCs	TCL SVOCs	PCBs	TCL Pesticides		Herbicides
SB-37191-050908-JP-001	SB-18-08	0	2	05/09/08	9:45	X		X		X	X		X	X	X	X	X	
SB-37191-050908-JP-002	SB-19-08/MW-17	0	2	05/09/08	10:30	X		X		X	X		X	X	X	X	X	
WG-37191-052808-001	MW-9/BH-1	-	-	05/28/08	10:15	X	X	X	X	X			X	X	X	X	X	MS/MSD
WG-37191-052808-002	MW-6/BH-3	-	-	05/28/08	9:40						X	X						
WG-37191-052808-003	MW-4/BH-2	-	-	05/28/08	12:00	X	X	X	X	X			X	X	X	X	X	
WG-37191-052808-004	MW-4/BH-2	-	-	05/28/08	13:05	X	X	X	X	X			X	X	X	X	X	Field Duplicate of WG-37191-052808-003
WG-37191-052808-005	MW-8/BH-15	-	-	05/28/08	12:45						X	X	X					
WG-37191-052808-006	MW-12	-	-	05/28/08	14:45						X	X	X					Field Duplicate of WG-37191-052808-006
WG-37191-052808-007	MW-12	-	-	05/28/08	16:00						X	X	X					
WG-37191-052808-008	MW-5/BH-5	-	-	05/28/08	14:20						X	X	X					
WG-37191-052808-009	MW-17	-	-	05/28/08	15:45						X	X	X					
TB-37191-052808	Trip Blank	-	-	-	-								X					

## Notes:

Al	Aluminum.
Ca	Calcium.
Fe	Iron.
ft bgs	Feet Below Ground Surface.
K	Potassium.
Mg	Magnesium.
MS	Matrix Spike.
MSD	Matrix Spike Duplicate.
Na	Sodium.
PCBs	Polychlorinated Biphenyls.
SVOCs	Semi-volatile Organic Compound.
TAL	Target Analyte List.
TCL	Target Compound List.
VOCs	Volatile Organic Compounds.

**TABLE 2**  
**SUMMARY OF ANALYTICAL METHODS**  
**SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY 2008**

<i>Parameter</i>	<i>Method</i> <sup>1</sup>
<i>Soil</i>	
TCL VOCs	SW-846 8260B
TCL SVOCs	SW-846 8270C
TCL Pesticides	SW-846 8081
Herbicides	SW-846 8151
Polychlorinated Biphenyls	SW-846 8082
TAL Metals	SW-846 6010/7000 Series
Cyanide	SW-846 9012
<i>Groundwater</i>	
TCL VOCs	SW-846 8260B
TCL SVOCs	SW-846 8270C
TCL Pesticides	SW-846 8081
Herbicides	SW-846 8151
Polychlorinated Biphenyls	SW-846 8082
TAL Metals (total and dissolved)	SW-846 6010/7000 Series
Cyanide	SW-846 9012

Notes:

1

SVOCs

TAL

TCL

VOCs

**TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008**

	Location ID:	103 Harrison	103 Harrison	127 Harrison Back	127 Harrison Back	127 Harrison Front	127 Harrison Front
	Sample Name:	SS-37191-050708-CMB-005	SS-37191-050708-CMB-006	SS-37191-050808-CMB-007	SS-37191-050808-CMB-008	SS-37191-050808-CMB-009	SS-37191-050808-CMB-010
	Sample Date:	5/7/2008	5/7/2008	5/8/2008	5/8/2008	5/8/2008	5/8/2008
	Depth:	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<b>Herbicides</b>							
2,4,5-T	ug/kg	--	--	--	--	--	--
2,4,5-TP (Silvex)	ug/kg	--	--	--	--	--	--
2,4-DB	ug/kg	--	--	--	--	--	--
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/kg	--	--	--	--	--	--
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	ug/kg	--	--	--	--	--	--
Dalapon	ug/kg	--	--	--	--	--	--
Dicamba	ug/kg	--	--	--	--	--	--
Dichlorprop	ug/kg	--	--	--	--	--	--
Dinoseb	ug/kg	--	--	--	--	--	--
Mecoprop (MCPP)	ug/kg	--	--	--	--	--	--
<b>Metals</b>							
Aluminum	mg/kg	10600	10200	--	--	--	--
Antimony	mg/kg	1.4 U	1.4 U	--	--	--	--
Arsenic	mg/kg	14.2	13.6	--	--	--	--
Barium	mg/kg	81.4	75.5	--	--	--	--
Beryllium	mg/kg	0.63	0.62	--	--	--	--
Cadmium	mg/kg	1.2 J	1.1 J	--	--	--	--
Calcium	mg/kg	3550	3590	--	--	--	--
Chromium Total	mg/kg	16.9 J	16.4 J	--	--	--	--
Cobalt	mg/kg	4.1 J	4.0 J	--	--	--	--
Copper	mg/kg	28.8 J	27.7 J	--	--	--	--
Iron	mg/kg	20800	19600	--	--	--	--
Lead	mg/kg	128	125	211 J	148 J	364 J	632 J
Magnesium	mg/kg	1940	1890	--	--	--	--
Manganese	mg/kg	219	211	--	--	--	--
Mercury	mg/kg	0.21	0.20	--	--	--	--
Nickel	mg/kg	13.5 J	12.8 J	--	--	--	--
Potassium	mg/kg	946	933	--	--	--	--
Selenium	mg/kg	1.2	1.5	--	--	--	--
Silver	mg/kg	0.29 J	0.34 J	--	--	--	--
Sodium	mg/kg	74.9 J	61.5 J	--	--	--	--
Thallium	mg/kg	1.4 U	1.4 U	--	--	--	--
Vanadium	mg/kg	26.0	25.1	--	--	--	--
Zinc	mg/kg	152 J	146 J	--	--	--	--
<b>PCBs</b>							
Aroclor-1016 (PCB-1016)	ug/kg	--	--	--	--	--	--
Aroclor-1221 (PCB-1221)	ug/kg	--	--	--	--	--	--
Aroclor-1232 (PCB-1232)	ug/kg	--	--	--	--	--	--
Aroclor-1242 (PCB-1242)	ug/kg	--	--	--	--	--	--
Aroclor-1248 (PCB-1248)	ug/kg	--	--	--	--	--	--
Aroclor-1254 (PCB-1254)	ug/kg	--	--	--	--	--	--
Aroclor-1260 (PCB-1260)	ug/kg	--	--	--	--	--	--

TABLE 3A  
 SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY 2008

	Location ID:	103 Harrison	103 Harrison	127 Harrison Back	127 Harrison Back	127 Harrison Front	127 Harrison Front
	Sample Name:	SS-37191-050708-CMB-005	SS-37191-050708-CMB-006	SS-37191-050808-CMB-007	SS-37191-050808-CMB-008	SS-37191-050808-CMB-009	SS-37191-050808-CMB-010
	Sample Date:	5/7/2008	5/7/2008	5/8/2008	5/8/2008	5/8/2008	5/8/2008
	Depth:	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<i>Pesticides</i>							
4,4'-DDD	ug/kg	--	--	--	--	--	--
4,4'-DDE	ug/kg	--	--	--	--	--	--
4,4'-DDT	ug/kg	--	--	--	--	--	--
Aldrin	ug/kg	--	--	--	--	--	--
alpha-BHC	ug/kg	--	--	--	--	--	--
alpha-Chlordane	ug/kg	--	--	--	--	--	--
beta-BHC	ug/kg	--	--	--	--	--	--
delta-BHC	ug/kg	--	--	--	--	--	--
Dieldrin	ug/kg	--	--	--	--	--	--
Endosulfan I	ug/kg	--	--	--	--	--	--
Endosulfan II	ug/kg	--	--	--	--	--	--
Endosulfan sulfate	ug/kg	--	--	--	--	--	--
Endrin	ug/kg	--	--	--	--	--	--
Endrin aldehyde	ug/kg	--	--	--	--	--	--
Endrin ketone	ug/kg	--	--	--	--	--	--
gamma-BHC (Lindane)	ug/kg	--	--	--	--	--	--
gamma-Chlordane	ug/kg	--	--	--	--	--	--
Heptachlor	ug/kg	--	--	--	--	--	--
Heptachlor epoxide	ug/kg	--	--	--	--	--	--
Methoxychlor	ug/kg	--	--	--	--	--	--
Toxaphene	ug/kg	--	--	--	--	--	--
<i>SVOAs</i>							
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/kg	--	--	--	--	--	--
2,4,5-Trichlorophenol	ug/kg	--	--	--	--	--	--
2,4,6-Trichlorophenol	ug/kg	--	--	--	--	--	--
2,4-Dichlorophenol	ug/kg	--	--	--	--	--	--
2,4-Dimethylphenol	ug/kg	--	--	--	--	--	--
2,4-Dinitrophenol	ug/kg	--	--	--	--	--	--
2,4-Dinitrotoluene	ug/kg	--	--	--	--	--	--
2,6-Dinitrotoluene	ug/kg	--	--	--	--	--	--
2-Chloronaphthalene	ug/kg	--	--	--	--	--	--
2-Chlorophenol	ug/kg	--	--	--	--	--	--
2-Methylnaphthalene	ug/kg	--	--	--	--	--	--
2-Methylphenol	ug/kg	--	--	--	--	--	--
2-Nitroaniline	ug/kg	--	--	--	--	--	--
2-Nitrophenol	ug/kg	--	--	--	--	--	--
3,3'-Dichlorobenzidine	ug/kg	--	--	--	--	--	--
3-Nitroaniline	ug/kg	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	ug/kg	--	--	--	--	--	--
4-Bromophenyl phenyl ether	ug/kg	--	--	--	--	--	--
4-Chloro-3-methylphenol	ug/kg	--	--	--	--	--	--
4-Chloroaniline	ug/kg	--	--	--	--	--	--



TABLE 3A  
 SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY 2008

	Location ID:	103 Harrison	103 Harrison	127 Harrison Back	127 Harrison Back	127 Harrison Front	127 Harrison Front
	Sample Name:	SS-37191-050708-CMB-005	SS-37191-050708-CMB-006	SS-37191-050808-CMB-007	SS-37191-050808-CMB-008	SS-37191-050808-CMB-009	SS-37191-050808-CMB-010
	Sample Date:	5/7/2008	5/7/2008	5/8/2008	5/8/2008	5/8/2008	5/8/2008
	Depth:	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
4-Chlorophenyl phenyl ether	ug/kg	--	--	--	--	--	--
4-Methylphenol	ug/kg	--	--	--	--	--	--
SVOAs							
4-Nitroaniline	ug/kg	--	--	--	--	--	--
4-Nitrophenol	ug/kg	--	--	--	--	--	--
Acenaphthene	ug/kg	--	--	--	--	--	--
Acenaphthylene	ug/kg	--	--	--	--	--	--
Acetophenone	ug/kg	--	--	--	--	--	--
Anthracene	ug/kg	--	--	--	--	--	--
Atrazine	ug/kg	--	--	--	--	--	--
Benzaldehyde	ug/kg	--	--	--	--	--	--
Benzo(a)anthracene	ug/kg	--	--	--	--	--	--
Benzo(a)pyrene	ug/kg	--	--	--	--	--	--
Benzo(b)fluoranthene	ug/kg	--	--	--	--	--	--
Benzo(g,h,i)perylene	ug/kg	--	--	--	--	--	--
Benzo(k)fluoranthene	ug/kg	--	--	--	--	--	--
Biphenyl	ug/kg	--	--	--	--	--	--
bis(2-Chloroethoxy)methane	ug/kg	--	--	--	--	--	--
bis(2-Chloroethyl)ether	ug/kg	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	ug/kg	--	--	--	--	--	--
Butyl benzylphthalate	ug/kg	--	--	--	--	--	--
Caprolactam	ug/kg	--	--	--	--	--	--
Carbazole	ug/kg	--	--	--	--	--	--
Chrysene	ug/kg	--	--	--	--	--	--
Dibenz(a,h)anthracene	ug/kg	--	--	--	--	--	--
Dibenzofuran	ug/kg	--	--	--	--	--	--
Diethyl phthalate	ug/kg	--	--	--	--	--	--
Dimethyl phthalate	ug/kg	--	--	--	--	--	--
Di-n-butylphthalate	ug/kg	--	--	--	--	--	--
Di-n-octyl phthalate	ug/kg	--	--	--	--	--	--
Fluoranthene	ug/kg	--	--	--	--	--	--
Fluorene	ug/kg	--	--	--	--	--	--
Hexachlorobenzene	ug/kg	--	--	--	--	--	--
Hexachlorobutadiene	ug/kg	--	--	--	--	--	--
Hexachlorocyclopentadiene	ug/kg	--	--	--	--	--	--
Hexachloroethane	ug/kg	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	ug/kg	--	--	--	--	--	--
Isophorone	ug/kg	--	--	--	--	--	--
Naphthalene	ug/kg	--	--	--	--	--	--
Nitrobenzene	ug/kg	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	ug/kg	--	--	--	--	--	--
N-Nitrosodiphenylamine	ug/kg	--	--	--	--	--	--
Pentachlorophenol	ug/kg	--	--	--	--	--	--
Phenanthrene	ug/kg	--	--	--	--	--	--
Phenol	ug/kg	--	--	--	--	--	--

TABLE 3A  
 SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY 2008

	Location ID:	103 Harrison	103 Harrison	127 Harrison Back	127 Harrison Back	127 Harrison Front	127 Harrison Front
	Sample Name:	SS-37191-050708-CMB-005	SS-37191-050708-CMB-006	SS-37191-050808-CMB-007	SS-37191-050808-CMB-008	SS-37191-050808-CMB-009	SS-37191-050808-CMB-010
	Sample Date:	5/7/2008	5/7/2008	5/8/2008	5/8/2008	5/8/2008	5/8/2008
	Depth:	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
Pyrene	ug/kg	--	--	--	--	--	--
<b>VOAs</b>							
1,1,1-Trichloroethane	ug/kg	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	ug/kg	--	--	--	--	--	--
1,1,2-Trichloroethane	ug/kg	--	--	--	--	--	--
1,1-Dichloroethane	ug/kg	--	--	--	--	--	--
1,1-Dichloroethene	ug/kg	--	--	--	--	--	--
1,2,4-Trichlorobenzene	ug/kg	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/kg	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	--	--	--	--	--	--
1,2-Dichlorobenzene	ug/kg	--	--	--	--	--	--
1,2-Dichloroethane	ug/kg	--	--	--	--	--	--
1,2-Dichloropropane	ug/kg	--	--	--	--	--	--
1,3-Dichlorobenzene	ug/kg	--	--	--	--	--	--
1,4-Dichlorobenzene	ug/kg	--	--	--	--	--	--
2-Butanone (Methyl Ethyl Ketone)	ug/kg	--	--	--	--	--	--
2-Hexanone	ug/kg	--	--	--	--	--	--
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/kg	--	--	--	--	--	--
Acetone	ug/kg	--	--	--	--	--	--
Benzene	ug/kg	--	--	--	--	--	--
Bromodichloromethane	ug/kg	--	--	--	--	--	--
Bromoform	ug/kg	--	--	--	--	--	--
Bromomethane (Methyl Bromide)	ug/kg	--	--	--	--	--	--
Carbon disulfide	ug/kg	--	--	--	--	--	--
Carbon tetrachloride	ug/kg	--	--	--	--	--	--
Chlorobenzene	ug/kg	--	--	--	--	--	--
Chloroethane	ug/kg	--	--	--	--	--	--
Chloroform (Trichloromethane)	ug/kg	--	--	--	--	--	--
Chloromethane (Methyl Chloride)	ug/kg	--	--	--	--	--	--
cis-1,2-Dichloroethene	ug/kg	--	--	--	--	--	--
cis-1,3-Dichloropropene	ug/kg	--	--	--	--	--	--
Cyclohexane	ug/kg	--	--	--	--	--	--
Dibromochloromethane	ug/kg	--	--	--	--	--	--
Dichlorodifluoromethane (CFC-12)	ug/kg	--	--	--	--	--	--
Ethylbenzene	ug/kg	--	--	--	--	--	--
Isopropylbenzene	ug/kg	--	--	--	--	--	--
Methyl acetate	ug/kg	--	--	--	--	--	--
Methyl cyclohexane	ug/kg	--	--	--	--	--	--
Methyl Tert Butyl Ether	ug/kg	--	--	--	--	--	--
Methylene chloride	ug/kg	--	--	--	--	--	--
Styrene	ug/kg	--	--	--	--	--	--
Tetrachloroethene	ug/kg	--	--	--	--	--	--
Toluene	ug/kg	--	--	--	--	--	--

**TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008**

	<i>Location ID:</i>	<i>103 Harrison</i>	<i>103 Harrison</i>	<i>127 Harrison Back</i>	<i>127 Harrison Back</i>	<i>127 Harrison Front</i>	<i>127 Harrison Front</i>
	<i>Sample Name:</i>	<i>SS-37191-050708-CMB-005</i>	<i>SS-37191-050708-CMB-006</i>	<i>SS-37191-050808-CMB-007</i>	<i>SS-37191-050808-CMB-008</i>	<i>SS-37191-050808-CMB-009</i>	<i>SS-37191-050808-CMB-010</i>
	<i>Sample Date:</i>	<i>5/7/2008</i>	<i>5/7/2008</i>	<i>5/8/2008</i>	<i>5/8/2008</i>	<i>5/8/2008</i>	<i>5/8/2008</i>
	<i>Depth:</i>	<i>0 - 0.17 ft</i>	<i>0.15 - 0.33 ft</i>	<i>0 - 0.17 ft</i>	<i>0.15 - 0.33 ft</i>	<i>0 - 0.17 ft</i>	<i>0.15 - 0.33 ft</i>
	<i>Sample Type:</i>	<i>(Orig.)</i>	<i>(Orig.)</i>	<i>(Orig.)</i>	<i>(Orig.)</i>	<i>(Orig.)</i>	<i>(Orig.)</i>
	<i>Units</i>						
trans-1,2-Dichloroethene	ug/kg	--	--	--	--	--	--
trans-1,3-Dichloropropene	ug/kg	--	--	--	--	--	--
Trichloroethene	ug/kg	--	--	--	--	--	--
Trichlorofluoromethane (CFC-11)	ug/kg	--	--	--	--	--	--
<b>VOAs</b>							
Trifluorotrichloroethane (Freon 113)	ug/kg	--	--	--	--	--	--
Vinyl chloride	ug/kg	--	--	--	--	--	--
Xylene (total)	ug/kg	--	--	--	--	--	--
<b>Wet</b>							
Cyanide (total)	mg/kg	0.70 U	0.70 U	--	--	--	--
Total Solids	%	71.0	71.0	76.5	81.0	67.7	77.8

## Notes:

J Estimated.  
PCBs Polychlorinated Biphenyls.  
SVOAs Semi-Volatile Organic Analytes  
U Not detected.  
VOAs Volatile Organic Analytes

TABLE 3A  
 SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY 2008

	Location ID:	138 Harrison	138 Harrison	148 Milton	148 Milton	20 Hayes	20 Hayes
	Sample Name:	SS-37191-050708-CMB-003	SS-37191-050708-CMB-004	SS-37191-050708-CMB-001	SS-37191-050708-CMB-002	SS-37191-050708-CMB-012	SS-37191-050708-CMB-013
	Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008
	Depth:	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<b>Herbicides</b>							
2,4,5-T	ug/kg	--	--	--	--	--	--
2,4,5-TP (Silvex)	ug/kg	--	--	--	--	--	--
2,4-DB	ug/kg	--	--	--	--	--	--
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/kg	--	--	--	--	--	--
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	ug/kg	--	--	--	--	--	--
Dalapon	ug/kg	--	--	--	--	--	--
Dicamba	ug/kg	--	--	--	--	--	--
Dichlorprop	ug/kg	--	--	--	--	--	--
Dinoseb	ug/kg	--	--	--	--	--	--
Mecoprop (MCPP)	ug/kg	--	--	--	--	--	--
<b>Metals</b>							
Aluminum	mg/kg	--	--	--	--	--	--
Antimony	mg/kg	--	--	--	--	--	--
Arsenic	mg/kg	--	--	--	--	--	--
Barium	mg/kg	--	--	--	--	--	--
Beryllium	mg/kg	--	--	--	--	--	--
Cadmium	mg/kg	--	--	--	--	--	--
Calcium	mg/kg	--	--	--	--	--	--
Chromium Total	mg/kg	--	--	--	--	--	--
Cobalt	mg/kg	--	--	--	--	--	--
Copper	mg/kg	--	--	--	--	--	--
Iron	mg/kg	--	--	--	--	--	--
Lead	mg/kg	295	320	66.7 J	182	44.0	82.9 J
Magnesium	mg/kg	--	--	--	--	--	--
Manganese	mg/kg	--	--	--	--	--	--
Mercury	mg/kg	--	--	--	--	--	--
Nickel	mg/kg	--	--	--	--	--	--
Potassium	mg/kg	--	--	--	--	--	--
Selenium	mg/kg	--	--	--	--	--	--
Silver	mg/kg	--	--	--	--	--	--
Sodium	mg/kg	--	--	--	--	--	--
Thallium	mg/kg	--	--	--	--	--	--
Vanadium	mg/kg	--	--	--	--	--	--
Zinc	mg/kg	--	--	--	--	--	--
<b>PCBs</b>							
Aroclor-1016 (PCB-1016)	ug/kg	--	--	--	--	--	--
Aroclor-1221 (PCB-1221)	ug/kg	--	--	--	--	--	--
Aroclor-1232 (PCB-1232)	ug/kg	--	--	--	--	--	--
Aroclor-1242 (PCB-1242)	ug/kg	--	--	--	--	--	--
Aroclor-1248 (PCB-1248)	ug/kg	--	--	--	--	--	--
Aroclor-1254 (PCB-1254)	ug/kg	--	--	--	--	--	--
Aroclor-1260 (PCB-1260)	ug/kg	--	--	--	--	--	--

TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

Location ID:	138 Harrison	138 Harrison	148 Milton	148 Milton	20 Hayes	20 Hayes
Sample Name:	SS-37191-050708-CMB-003	SS-37191-050708-CMB-004	SS-37191-050708-CMB-001	SS-37191-050708-CMB-002	SS-37191-050708-CMB-012	SS-37191-050708-CMB-013
Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008
Depth:	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft
Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
Units						
<b>Pesticides</b>						
4,4'-DDD	ug/kg	--	--	--	--	--
4,4'-DDE	ug/kg	--	--	--	--	--
4,4'-DDT	ug/kg	--	--	--	--	--
Aldrin	ug/kg	--	--	--	--	--
alpha-BHC	ug/kg	--	--	--	--	--
alpha-Chlordane	ug/kg	--	--	--	--	--
beta-BHC	ug/kg	--	--	--	--	--
delta-BHC	ug/kg	--	--	--	--	--
Dieldrin	ug/kg	--	--	--	--	--
Endosulfan I	ug/kg	--	--	--	--	--
Endosulfan II	ug/kg	--	--	--	--	--
Endosulfan sulfate	ug/kg	--	--	--	--	--
Endrin	ug/kg	--	--	--	--	--
Endrin aldehyde	ug/kg	--	--	--	--	--
Endrin ketone	ug/kg	--	--	--	--	--
gamma-BHC (Lindane)	ug/kg	--	--	--	--	--
gamma-Chlordane	ug/kg	--	--	--	--	--
Heptachlor	ug/kg	--	--	--	--	--
Heptachlor epoxide	ug/kg	--	--	--	--	--
Methoxychlor	ug/kg	--	--	--	--	--
Toxaphene	ug/kg	--	--	--	--	--
<b>SVOAs</b>						
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/kg	--	--	--	--	--
2,4,5-Trichlorophenol	ug/kg	--	--	--	--	--
2,4,6-Trichlorophenol	ug/kg	--	--	--	--	--
2,4-Dichlorophenol	ug/kg	--	--	--	--	--
2,4-Dimethylphenol	ug/kg	--	--	--	--	--
2,4-Dinitrophenol	ug/kg	--	--	--	--	--
2,4-Dinitrotoluene	ug/kg	--	--	--	--	--
2,6-Dinitrotoluene	ug/kg	--	--	--	--	--
2-Chloronaphthalene	ug/kg	--	--	--	--	--
2-Chlorophenol	ug/kg	--	--	--	--	--
2-Methylnaphthalene	ug/kg	--	--	--	--	--
2-Methylphenol	ug/kg	--	--	--	--	--
2-Nitroaniline	ug/kg	--	--	--	--	--
2-Nitrophenol	ug/kg	--	--	--	--	--
3,3'-Dichlorobenzidine	ug/kg	--	--	--	--	--
3-Nitroaniline	ug/kg	--	--	--	--	--
4,6-Dinitro-2-methylphenol	ug/kg	--	--	--	--	--
4-Bromophenyl phenyl ether	ug/kg	--	--	--	--	--
4-Chloro-3-methylphenol	ug/kg	--	--	--	--	--
4-Chloroaniline	ug/kg	--	--	--	--	--

TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

	Location ID:	138 Harrison	138 Harrison	148 Milton	148 Milton	20 Hayes	20 Hayes
	Sample Name:	SS-37191-050708-CMB-003	SS-37191-050708-CMB-004	SS-37191-050708-CMB-001	SS-37191-050708-CMB-002	SS-37191-050708-CMB-012	SS-37191-050708-CMB-013
	Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008
	Depth:	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
4-Chlorophenyl phenyl ether	ug/kg	--	--	--	--	--	--
4-Methylphenol	ug/kg	--	--	--	--	--	--
SVOAs							
4-Nitroaniline	ug/kg	--	--	--	--	--	--
4-Nitrophenol	ug/kg	--	--	--	--	--	--
Acenaphthene	ug/kg	--	--	--	--	--	--
Acenaphthylene	ug/kg	--	--	--	--	--	--
Acetophenone	ug/kg	--	--	--	--	--	--
Anthracene	ug/kg	--	--	--	--	--	--
Atrazine	ug/kg	--	--	--	--	--	--
Benzaldehyde	ug/kg	--	--	--	--	--	--
Benzo(a)anthracene	ug/kg	--	--	--	--	--	--
Benzo(a)pyrene	ug/kg	--	--	--	--	--	--
Benzo(b)fluoranthene	ug/kg	--	--	--	--	--	--
Benzo(g,h,i)perylene	ug/kg	--	--	--	--	--	--
Benzo(k)fluoranthene	ug/kg	--	--	--	--	--	--
Biphenyl	ug/kg	--	--	--	--	--	--
bis(2-Chloroethoxy)methane	ug/kg	--	--	--	--	--	--
bis(2-Chloroethyl)ether	ug/kg	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	ug/kg	--	--	--	--	--	--
Butyl benzylphthalate	ug/kg	--	--	--	--	--	--
Caprolactam	ug/kg	--	--	--	--	--	--
Carbazole	ug/kg	--	--	--	--	--	--
Chrysene	ug/kg	--	--	--	--	--	--
Dibenz(a,h)anthracene	ug/kg	--	--	--	--	--	--
Dibenzofuran	ug/kg	--	--	--	--	--	--
Diethyl phthalate	ug/kg	--	--	--	--	--	--
Dimethyl phthalate	ug/kg	--	--	--	--	--	--
Di-n-butylphthalate	ug/kg	--	--	--	--	--	--
Di-n-octyl phthalate	ug/kg	--	--	--	--	--	--
Fluoranthene	ug/kg	--	--	--	--	--	--
Fluorene	ug/kg	--	--	--	--	--	--
Hexachlorobenzene	ug/kg	--	--	--	--	--	--
Hexachlorobutadiene	ug/kg	--	--	--	--	--	--
Hexachlorocyclopentadiene	ug/kg	--	--	--	--	--	--
Hexachloroethane	ug/kg	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	ug/kg	--	--	--	--	--	--
Isophorone	ug/kg	--	--	--	--	--	--
Naphthalene	ug/kg	--	--	--	--	--	--
Nitrobenzene	ug/kg	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	ug/kg	--	--	--	--	--	--
N-Nitrosodiphenylamine	ug/kg	--	--	--	--	--	--
Pentachlorophenol	ug/kg	--	--	--	--	--	--
Phenanthrene	ug/kg	--	--	--	--	--	--
Phenol	ug/kg	--	--	--	--	--	--

TABLE 3A  
 SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY 2008

	Location ID:	138 Harrison	138 Harrison	148 Milton	148 Milton	20 Hayes	20 Hayes
	Sample Name:	SS-37191-050708-CMB-003	SS-37191-050708-CMB-004	SS-37191-050708-CMB-001	SS-37191-050708-CMB-002	SS-37191-050708-CMB-012	SS-37191-050708-CMB-013
	Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008
	Depth:	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
Pyrene	ug/kg	--	--	--	--	--	--
<b>VOAs</b>							
1,1,1-Trichloroethane	ug/kg	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	ug/kg	--	--	--	--	--	--
1,1,2-Trichloroethane	ug/kg	--	--	--	--	--	--
1,1-Dichloroethane	ug/kg	--	--	--	--	--	--
1,1-Dichloroethene	ug/kg	--	--	--	--	--	--
1,2,4-Trichlorobenzene	ug/kg	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/kg	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	--	--	--	--	--	--
1,2-Dichlorobenzene	ug/kg	--	--	--	--	--	--
1,2-Dichloroethane	ug/kg	--	--	--	--	--	--
1,2-Dichloropropane	ug/kg	--	--	--	--	--	--
1,3-Dichlorobenzene	ug/kg	--	--	--	--	--	--
1,4-Dichlorobenzene	ug/kg	--	--	--	--	--	--
2-Butanone (Methyl Ethyl Ketone)	ug/kg	--	--	--	--	--	--
2-Hexanone	ug/kg	--	--	--	--	--	--
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/kg	--	--	--	--	--	--
Acetone	ug/kg	--	--	--	--	--	--
Benzene	ug/kg	--	--	--	--	--	--
Bromodichloromethane	ug/kg	--	--	--	--	--	--
Bromoform	ug/kg	--	--	--	--	--	--
Bromomethane (Methyl Bromide)	ug/kg	--	--	--	--	--	--
Carbon disulfide	ug/kg	--	--	--	--	--	--
Carbon tetrachloride	ug/kg	--	--	--	--	--	--
Chlorobenzene	ug/kg	--	--	--	--	--	--
Chloroethane	ug/kg	--	--	--	--	--	--
Chloroform (Trichloromethane)	ug/kg	--	--	--	--	--	--
Chloromethane (Methyl Chloride)	ug/kg	--	--	--	--	--	--
cis-1,2-Dichloroethene	ug/kg	--	--	--	--	--	--
cis-1,3-Dichloropropene	ug/kg	--	--	--	--	--	--
Cyclohexane	ug/kg	--	--	--	--	--	--
Dibromochloromethane	ug/kg	--	--	--	--	--	--
Dichlorodifluoromethane (CFC-12)	ug/kg	--	--	--	--	--	--
Ethylbenzene	ug/kg	--	--	--	--	--	--
Isopropylbenzene	ug/kg	--	--	--	--	--	--
Methyl acetate	ug/kg	--	--	--	--	--	--
Methyl cyclohexane	ug/kg	--	--	--	--	--	--
Methyl Tert Butyl Ether	ug/kg	--	--	--	--	--	--
Methylene chloride	ug/kg	--	--	--	--	--	--
Styrene	ug/kg	--	--	--	--	--	--
Tetrachloroethene	ug/kg	--	--	--	--	--	--
Toluene	ug/kg	--	--	--	--	--	--

**TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008**

	Location ID:	138 Harrison	138 Harrison	148 Milton	148 Milton	20 Hayes	20 Hayes
	Sample Name:	SS-37191-050708-CMB-003	SS-37191-050708-CMB-004	SS-37191-050708-CMB-001	SS-37191-050708-CMB-002	SS-37191-050708-CMB-012	SS-37191-050708-CMB-013
	Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008
	Depth:	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
trans-1,2-Dichloroethene	ug/kg	--	--	--	--	--	--
trans-1,3-Dichloropropene	ug/kg	--	--	--	--	--	--
Trichloroethene	ug/kg	--	--	--	--	--	--
Trichlorofluoromethane (CFC-11)	ug/kg	--	--	--	--	--	--
<b>VOAs</b>							
Trifluorotrichloroethane (Freon 113)	ug/kg	--	--	--	--	--	--
Vinyl chloride	ug/kg	--	--	--	--	--	--
Xylene (total)	ug/kg	--	--	--	--	--	--
<b>Wet</b>							
Cyanide (total)	mg/kg	--	--	--	--	--	--
Total Solids	%	80.5	80.0	92.2	86.7	90.0	90.6

Notes:

- J Estimated.
- PCBs Polychlorinated Biphenyls.
- SVOAs Semi-Volatile Organic Analytes
- U Not detected.
- VOAs Volatile Organic Analytes



TABLE 3A  
 SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY 2008

	Location ID:	22 Lester	22 Lester	34 Hayes North	34 Hayes North	34 Hayes South	34 Hayes South
	Sample Name:	SS-37191-050708-CMB-010	SS-37191-050708-CMB-011	SS-37191-050708-CMB-016	SS-37191-050708-CMB-017	SS-37191-050708-CMB-014	SS-37191-050708-CMB-015
	Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008
	Depth:	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<b>Herbicides</b>							
2,4,5-T	ug/kg	--	--	--	--	--	--
2,4,5-TP (Silvex)	ug/kg	--	--	--	--	--	--
2,4-DB	ug/kg	--	--	--	--	--	--
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/kg	--	--	--	--	--	--
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	ug/kg	--	--	--	--	--	--
Dalapon	ug/kg	--	--	--	--	--	--
Dicamba	ug/kg	--	--	--	--	--	--
Dichlorprop	ug/kg	--	--	--	--	--	--
Dinoseb	ug/kg	--	--	--	--	--	--
Mecoprop (MCP)	ug/kg	--	--	--	--	--	--
<b>Metals</b>							
Aluminum	mg/kg	--	--	--	--	--	--
Antimony	mg/kg	--	--	--	--	--	--
Arsenic	mg/kg	--	--	--	--	--	--
Barium	mg/kg	--	--	--	--	--	--
Beryllium	mg/kg	--	--	--	--	--	--
Cadmium	mg/kg	--	--	--	--	--	--
Calcium	mg/kg	--	--	--	--	--	--
Chromium Total	mg/kg	--	--	--	--	--	--
Cobalt	mg/kg	--	--	--	--	--	--
Copper	mg/kg	--	--	--	--	--	--
Iron	mg/kg	--	--	--	--	--	--
Lead	mg/kg	347	336	23.0	59.0	144	148
Magnesium	mg/kg	--	--	--	--	--	--
Manganese	mg/kg	--	--	--	--	--	--
Mercury	mg/kg	--	--	--	--	--	--
Nickel	mg/kg	--	--	--	--	--	--
Potassium	mg/kg	--	--	--	--	--	--
Selenium	mg/kg	--	--	--	--	--	--
Silver	mg/kg	--	--	--	--	--	--
Sodium	mg/kg	--	--	--	--	--	--
Thallium	mg/kg	--	--	--	--	--	--
Vanadium	mg/kg	--	--	--	--	--	--
Zinc	mg/kg	--	--	--	--	--	--
<b>PCBs</b>							
Aroclor-1016 (PCB-1016)	ug/kg	--	--	--	--	--	--
Aroclor-1221 (PCB-1221)	ug/kg	--	--	--	--	--	--
Aroclor-1232 (PCB-1232)	ug/kg	--	--	--	--	--	--
Aroclor-1242 (PCB-1242)	ug/kg	--	--	--	--	--	--
Aroclor-1248 (PCB-1248)	ug/kg	--	--	--	--	--	--
Aroclor-1254 (PCB-1254)	ug/kg	--	--	--	--	--	--
Aroclor-1260 (PCB-1260)	ug/kg	--	--	--	--	--	--

TABLE 3A  
 SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY 2008

	Location ID:	22 Lester	22 Lester	34 Hayes North	34 Hayes North	34 Hayes South	34 Hayes South
	Sample Name:	SS-37191-050708-CMB-010	SS-37191-050708-CMB-011	SS-37191-050708-CMB-016	SS-37191-050708-CMB-017	SS-37191-050708-CMB-014	SS-37191-050708-CMB-015
	Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008
	Depth:	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<b>Pesticides</b>							
4,4'-DDD	ug/kg	--	--	--	--	--	--
4,4'-DDE	ug/kg	--	--	--	--	--	--
4,4'-DDT	ug/kg	--	--	--	--	--	--
Aldrin	ug/kg	--	--	--	--	--	--
alpha-BHC	ug/kg	--	--	--	--	--	--
alpha-Chlordane	ug/kg	--	--	--	--	--	--
beta-BHC	ug/kg	--	--	--	--	--	--
delta-BHC	ug/kg	--	--	--	--	--	--
Dieldrin	ug/kg	--	--	--	--	--	--
Endosulfan I	ug/kg	--	--	--	--	--	--
Endosulfan II	ug/kg	--	--	--	--	--	--
Endosulfan sulfate	ug/kg	--	--	--	--	--	--
Endrin	ug/kg	--	--	--	--	--	--
Endrin aldehyde	ug/kg	--	--	--	--	--	--
Endrin ketone	ug/kg	--	--	--	--	--	--
gamma-BHC (Lindane)	ug/kg	--	--	--	--	--	--
gamma-Chlordane	ug/kg	--	--	--	--	--	--
Heptachlor	ug/kg	--	--	--	--	--	--
Heptachlor epoxide	ug/kg	--	--	--	--	--	--
Methoxychlor	ug/kg	--	--	--	--	--	--
Toxaphene	ug/kg	--	--	--	--	--	--
<b>SVOAs</b>							
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/kg	--	--	--	--	--	--
2,4,5-Trichlorophenol	ug/kg	--	--	--	--	--	--
2,4,6-Trichlorophenol	ug/kg	--	--	--	--	--	--
2,4-Dichlorophenol	ug/kg	--	--	--	--	--	--
2,4-Dimethylphenol	ug/kg	--	--	--	--	--	--
2,4-Dinitrophenol	ug/kg	--	--	--	--	--	--
2,4-Dinitrotoluene	ug/kg	--	--	--	--	--	--
2,6-Dinitrotoluene	ug/kg	--	--	--	--	--	--
2-Chloronaphthalene	ug/kg	--	--	--	--	--	--
2-Chlorophenol	ug/kg	--	--	--	--	--	--
2-Methylnaphthalene	ug/kg	--	--	--	--	--	--
2-Methylphenol	ug/kg	--	--	--	--	--	--
2-Nitroaniline	ug/kg	--	--	--	--	--	--
2-Nitrophenol	ug/kg	--	--	--	--	--	--
3,3'-Dichlorobenzidine	ug/kg	--	--	--	--	--	--
3-Nitroaniline	ug/kg	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	ug/kg	--	--	--	--	--	--
4-Bromophenyl phenyl ether	ug/kg	--	--	--	--	--	--
4-Chloro-3-methylphenol	ug/kg	--	--	--	--	--	--
4-Chloroaniline	ug/kg	--	--	--	--	--	--

TABLE 3A  
 SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY 2008

	Location ID:	22 Lester	22 Lester	34 Hayes North	34 Hayes North	34 Hayes South	34 Hayes South
	Sample Name:	SS-37191-050708-CMB-010	SS-37191-050708-CMB-011	SS-37191-050708-CMB-016	SS-37191-050708-CMB-017	SS-37191-050708-CMB-014	SS-37191-050708-CMB-015
	Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008
	Depth:	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
4-Chlorophenyl phenyl ether	ug/kg	--	--	--	--	--	--
4-Methylphenol	ug/kg	--	--	--	--	--	--
SVOAs							
4-Nitroaniline	ug/kg	--	--	--	--	--	--
4-Nitrophenol	ug/kg	--	--	--	--	--	--
Acenaphthene	ug/kg	--	--	--	--	--	--
Acenaphthylene	ug/kg	--	--	--	--	--	--
Acetophenone	ug/kg	--	--	--	--	--	--
Anthracene	ug/kg	--	--	--	--	--	--
Atrazine	ug/kg	--	--	--	--	--	--
Benzaldehyde	ug/kg	--	--	--	--	--	--
Benzo(a)anthracene	ug/kg	--	--	--	--	--	--
Benzo(a)pyrene	ug/kg	--	--	--	--	--	--
Benzo(b)fluoranthene	ug/kg	--	--	--	--	--	--
Benzo(g,h,i)perylene	ug/kg	--	--	--	--	--	--
Benzo(k)fluoranthene	ug/kg	--	--	--	--	--	--
Biphenyl	ug/kg	--	--	--	--	--	--
bis(2-Chloroethoxy)methane	ug/kg	--	--	--	--	--	--
bis(2-Chloroethyl)ether	ug/kg	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	ug/kg	--	--	--	--	--	--
Butyl benzylphthalate	ug/kg	--	--	--	--	--	--
Caprolactam	ug/kg	--	--	--	--	--	--
Carbazole	ug/kg	--	--	--	--	--	--
Chrysene	ug/kg	--	--	--	--	--	--
Dibenz(a,h)anthracene	ug/kg	--	--	--	--	--	--
Dibenzofuran	ug/kg	--	--	--	--	--	--
Diethyl phthalate	ug/kg	--	--	--	--	--	--
Dimethyl phthalate	ug/kg	--	--	--	--	--	--
Di-n-butylphthalate	ug/kg	--	--	--	--	--	--
Di-n-octyl phthalate	ug/kg	--	--	--	--	--	--
Fluoranthene	ug/kg	--	--	--	--	--	--
Fluorene	ug/kg	--	--	--	--	--	--
Hexachlorobenzene	ug/kg	--	--	--	--	--	--
Hexachlorobutadiene	ug/kg	--	--	--	--	--	--
Hexachlorocyclopentadiene	ug/kg	--	--	--	--	--	--
Hexachloroethane	ug/kg	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	ug/kg	--	--	--	--	--	--
Isophorone	ug/kg	--	--	--	--	--	--
Naphthalene	ug/kg	--	--	--	--	--	--
Nitrobenzene	ug/kg	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	ug/kg	--	--	--	--	--	--
N-Nitrosodiphenylamine	ug/kg	--	--	--	--	--	--
Pentachlorophenol	ug/kg	--	--	--	--	--	--
Phenanthrene	ug/kg	--	--	--	--	--	--
Phenol	ug/kg	--	--	--	--	--	--

**TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008**

Location ID:	22 Lester	22 Lester	34 Hayes North	34 Hayes North	34 Hayes South	34 Hayes South
Sample Name:	SS-37191-050708-CMB-010	SS-37191-050708-CMB-011	SS-37191-050708-CMB-016	SS-37191-050708-CMB-017	SS-37191-050708-CMB-014	SS-37191-050708-CMB-015
Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008
Depth:	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft
Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
Units						
Pyrene	ug/kg	--	--	--	--	--
<b>VOAs</b>						
1,1,1-Trichloroethane	ug/kg	--	--	--	--	--
1,1,2,2-Tetrachloroethane	ug/kg	--	--	--	--	--
1,1,2-Trichloroethane	ug/kg	--	--	--	--	--
1,1-Dichloroethane	ug/kg	--	--	--	--	--
1,1-Dichloroethene	ug/kg	--	--	--	--	--
1,2,4-Trichlorobenzene	ug/kg	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/kg	--	--	--	--	--
1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	--	--	--	--	--
1,2-Dichlorobenzene	ug/kg	--	--	--	--	--
1,2-Dichloroethane	ug/kg	--	--	--	--	--
1,2-Dichloropropane	ug/kg	--	--	--	--	--
1,3-Dichlorobenzene	ug/kg	--	--	--	--	--
1,4-Dichlorobenzene	ug/kg	--	--	--	--	--
2-Butanone (Methyl Ethyl Ketone)	ug/kg	--	--	--	--	--
2-Hexanone	ug/kg	--	--	--	--	--
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/kg	--	--	--	--	--
Acetone	ug/kg	--	--	--	--	--
Benzene	ug/kg	--	--	--	--	--
Bromodichloromethane	ug/kg	--	--	--	--	--
Bromoform	ug/kg	--	--	--	--	--
Bromomethane (Methyl Bromide)	ug/kg	--	--	--	--	--
Carbon disulfide	ug/kg	--	--	--	--	--
Carbon tetrachloride	ug/kg	--	--	--	--	--
Chlorobenzene	ug/kg	--	--	--	--	--
Chloroethane	ug/kg	--	--	--	--	--
Chloroform (Trichloromethane)	ug/kg	--	--	--	--	--
Chloromethane (Methyl Chloride)	ug/kg	--	--	--	--	--
cis-1,2-Dichloroethene	ug/kg	--	--	--	--	--
cis-1,3-Dichloropropene	ug/kg	--	--	--	--	--
Cyclohexane	ug/kg	--	--	--	--	--
Dibromochloromethane	ug/kg	--	--	--	--	--
Dichlorodifluoromethane (CFC-12)	ug/kg	--	--	--	--	--
Ethylbenzene	ug/kg	--	--	--	--	--
Isopropylbenzene	ug/kg	--	--	--	--	--
Methyl acetate	ug/kg	--	--	--	--	--
Methyl cyclohexane	ug/kg	--	--	--	--	--
Methyl Tert Butyl Ether	ug/kg	--	--	--	--	--
Methylene chloride	ug/kg	--	--	--	--	--
Styrene	ug/kg	--	--	--	--	--
Tetrachloroethene	ug/kg	--	--	--	--	--
Toluene	ug/kg	--	--	--	--	--

**TABLE 3A**  
**SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY 2008**

	<i>Location ID:</i>	<i>22 Lester</i>	<i>22 Lester</i>	<i>34 Hayes North</i>	<i>34 Hayes North</i>	<i>34 Hayes South</i>	<i>34 Hayes South</i>
	<i>Sample Name:</i>	<i>SS-37191-050708-CMB-010</i>	<i>SS-37191-050708-CMB-011</i>	<i>SS-37191-050708-CMB-016</i>	<i>SS-37191-050708-CMB-017</i>	<i>SS-37191-050708-CMB-014</i>	<i>SS-37191-050708-CMB-015</i>
	<i>Sample Date:</i>	<i>5/7/2008</i>		<i>5/7/2008</i>		<i>5/7/2008</i>	
	<i>Depth:</i>	<i>0 - 0.17 ft</i>		<i>0 - 0.17 ft</i>		<i>0 - 0.17 ft</i>	
	<i>Sample Type:</i>	<i>(Orig.)</i>		<i>(Orig.)</i>		<i>(Orig.)</i>	
	<i>Units</i>						
trans-1,2-Dichloroethene	ug/kg	--	--	--	--	--	--
trans-1,3-Dichloropropene	ug/kg	--	--	--	--	--	--
Trichloroethene	ug/kg	--	--	--	--	--	--
Trichlorofluoromethane (CFC-11)	ug/kg	--	--	--	--	--	--
<b>VOAs</b>							
Trifluorotrchloroethane (Freon 113)	ug/kg	--	--	--	--	--	--
Vinyl chloride	ug/kg	--	--	--	--	--	--
Xylene (total)	ug/kg	--	--	--	--	--	--
<b>Wet</b>							
Cyanide (total)	mg/kg	--	--	--	--	--	--
Total Solids	%	80.5	81.4	91.7	87.4	87.5	86.8

## Notes:

J Estimated.  
PCBs Polychlorinated Biphenyls.  
SVOAs Semi-Volatile Organic Analytes  
U Not detected.  
VOAs Volatile Organic Analytes

**TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008**

	Location ID:	36 Lester	36 Lester	36 Lester	55 Lester North	55 Lester North	55 Lester South
	Sample Name:	SS-37191-050708-CMB-007	SS-37191-050708-CMB-008	SS-37191-050708-CMB-009	SS-37191-050808-CMB-001	SS-37191-050808-CMB-002	SS-37191-050808-CMB-003
	Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/8/2008	5/8/2008	5/8/2008
	Depth:	0 - 0.17 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft
	Sample Type:	(Orig.)	Duplicate	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<b>Herbicides</b>							
2,4,5-T	ug/kg	--	--	--	--	--	--
2,4,5-TP (Silvex)	ug/kg	--	--	--	--	--	--
2,4-DB	ug/kg	--	--	--	--	--	--
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/kg	--	--	--	--	--	--
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	ug/kg	--	--	--	--	--	--
Dalapon	ug/kg	--	--	--	--	--	--
Dicamba	ug/kg	--	--	--	--	--	--
Dichlorprop	ug/kg	--	--	--	--	--	--
Dinoseb	ug/kg	--	--	--	--	--	--
Mecoprop (MCPP)	ug/kg	--	--	--	--	--	--
<b>Metals</b>							
Aluminum	mg/kg	--	--	--	--	--	--
Antimony	mg/kg	--	--	--	--	--	--
Arsenic	mg/kg	--	--	--	--	--	--
Barium	mg/kg	--	--	--	--	--	--
Beryllium	mg/kg	--	--	--	--	--	--
Cadmium	mg/kg	--	--	--	--	--	--
Calcium	mg/kg	--	--	--	--	--	--
Chromium Total	mg/kg	--	--	--	--	--	--
Cobalt	mg/kg	--	--	--	--	--	--
Copper	mg/kg	--	--	--	--	--	--
Iron	mg/kg	--	--	--	--	--	--
Lead	mg/kg	74.3	64.8	52.2	66.9 ]	30.6 ]	46.3 ]
Magnesium	mg/kg	--	--	--	--	--	--
Manganese	mg/kg	--	--	--	--	--	--
Mercury	mg/kg	--	--	--	--	--	--
Nickel	mg/kg	--	--	--	--	--	--
Potassium	mg/kg	--	--	--	--	--	--
Selenium	mg/kg	--	--	--	--	--	--
Silver	mg/kg	--	--	--	--	--	--
Sodium	mg/kg	--	--	--	--	--	--
Thallium	mg/kg	--	--	--	--	--	--
Vanadium	mg/kg	--	--	--	--	--	--
Zinc	mg/kg	--	--	--	--	--	--
<b>PCBs</b>							
Aroclor-1016 (PCB-1016)	ug/kg	--	--	--	--	--	--
Aroclor-1221 (PCB-1221)	ug/kg	--	--	--	--	--	--
Aroclor-1232 (PCB-1232)	ug/kg	--	--	--	--	--	--
Aroclor-1242 (PCB-1242)	ug/kg	--	--	--	--	--	--
Aroclor-1248 (PCB-1248)	ug/kg	--	--	--	--	--	--
Aroclor-1254 (PCB-1254)	ug/kg	--	--	--	--	--	--
Aroclor-1260 (PCB-1260)	ug/kg	--	--	--	--	--	--

TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

	Location ID:	36 Lester	36 Lester	36 Lester	55 Lester North	55 Lester North	55 Lester South
	Sample Name:	SS-37191-050708-CMB-007	SS-37191-050708-CMB-008	SS-37191-050708-CMB-009	SS-37191-050808-CMB-001	SS-37191-050808-CMB-002	SS-37191-050808-CMB-003
	Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/8/2008	5/8/2008	5/8/2008
	Depth:	0 - 0.17 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft
	Sample Type:	(Orig.)	Duplicate	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<i>Pesticides</i>							
4,4'-DDD	ug/kg	--	--	--	--	--	--
4,4'-DDE	ug/kg	--	--	--	--	--	--
4,4'-DDT	ug/kg	--	--	--	--	--	--
Aldrin	ug/kg	--	--	--	--	--	--
alpha-BHC	ug/kg	--	--	--	--	--	--
alpha-Chlordane	ug/kg	--	--	--	--	--	--
beta-BHC	ug/kg	--	--	--	--	--	--
delta-BHC	ug/kg	--	--	--	--	--	--
Dieldrin	ug/kg	--	--	--	--	--	--
Endosulfan I	ug/kg	--	--	--	--	--	--
Endosulfan II	ug/kg	--	--	--	--	--	--
Endosulfan sulfate	ug/kg	--	--	--	--	--	--
Endrin	ug/kg	--	--	--	--	--	--
Endrin aldehyde	ug/kg	--	--	--	--	--	--
Endrin ketone	ug/kg	--	--	--	--	--	--
gamma-BHC (Lindane)	ug/kg	--	--	--	--	--	--
gamma-Chlordane	ug/kg	--	--	--	--	--	--
Heptachlor	ug/kg	--	--	--	--	--	--
Heptachlor epoxide	ug/kg	--	--	--	--	--	--
Methoxychlor	ug/kg	--	--	--	--	--	--
Toxaphene	ug/kg	--	--	--	--	--	--
<i>SVOAs</i>							
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/kg	--	--	--	--	--	--
2,4,5-Trichlorophenol	ug/kg	--	--	--	--	--	--
2,4,6-Trichlorophenol	ug/kg	--	--	--	--	--	--
2,4-Dichlorophenol	ug/kg	--	--	--	--	--	--
2,4-Dimethylphenol	ug/kg	--	--	--	--	--	--
2,4-Dinitrophenol	ug/kg	--	--	--	--	--	--
2,4-Dinitrotoluene	ug/kg	--	--	--	--	--	--
2,6-Dinitrotoluene	ug/kg	--	--	--	--	--	--
2-Chloronaphthalene	ug/kg	--	--	--	--	--	--
2-Chlorophenol	ug/kg	--	--	--	--	--	--
2-Methylnaphthalene	ug/kg	--	--	--	--	--	--
2-Methylphenol	ug/kg	--	--	--	--	--	--
2-Nitroaniline	ug/kg	--	--	--	--	--	--
2-Nitrophenol	ug/kg	--	--	--	--	--	--
3,3'-Dichlorobenzidine	ug/kg	--	--	--	--	--	--
3-Nitroaniline	ug/kg	--	--	--	--	--	--
4,6-Dinitro-2-methylphenol	ug/kg	--	--	--	--	--	--
4-Bromophenyl phenyl ether	ug/kg	--	--	--	--	--	--
4-Chloro-3-methylphenol	ug/kg	--	--	--	--	--	--
4-Chloroaniline	ug/kg	--	--	--	--	--	--

TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

	Location ID:	36 Lester	36 Lester	36 Lester	55 Lester North	55 Lester North	55 Lester South
	Sample Name:	SS-37191-050708-CMB-007	SS-37191-050708-CMB-008	SS-37191-050708-CMB-009	SS-37191-050808-CMB-001	SS-37191-050808-CMB-002	SS-37191-050808-CMB-003
	Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/8/2008	5/8/2008	5/8/2008
	Depth:	0 - 0.17 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft
	Sample Type:	(Orig.)	Duplicate	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
4-Chlorophenyl phenyl ether	ug/kg	--	--	--	--	--	--
4-Methylphenol	ug/kg	--	--	--	--	--	--
SVOAs							
4-Nitroaniline	ug/kg	--	--	--	--	--	--
4-Nitrophenol	ug/kg	--	--	--	--	--	--
Acenaphthene	ug/kg	--	--	--	--	--	--
Acenaphthylene	ug/kg	--	--	--	--	--	--
Acetophenone	ug/kg	--	--	--	--	--	--
Anthracene	ug/kg	--	--	--	--	--	--
Atrazine	ug/kg	--	--	--	--	--	--
Benzaldehyde	ug/kg	--	--	--	--	--	--
Benzo(a)anthracene	ug/kg	--	--	--	--	--	--
Benzo(a)pyrene	ug/kg	--	--	--	--	--	--
Benzo(b)fluoranthene	ug/kg	--	--	--	--	--	--
Benzo(g,h,i)perylene	ug/kg	--	--	--	--	--	--
Benzo(k)fluoranthene	ug/kg	--	--	--	--	--	--
Biphenyl	ug/kg	--	--	--	--	--	--
bis(2-Chloroethoxy)methane	ug/kg	--	--	--	--	--	--
bis(2-Chloroethyl)ether	ug/kg	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	ug/kg	--	--	--	--	--	--
Butyl benzylphthalate	ug/kg	--	--	--	--	--	--
Caprolactam	ug/kg	--	--	--	--	--	--
Carbazole	ug/kg	--	--	--	--	--	--
Chrysene	ug/kg	--	--	--	--	--	--
Dibenz(a,h)anthracene	ug/kg	--	--	--	--	--	--
Dibenzofuran	ug/kg	--	--	--	--	--	--
Diethyl phthalate	ug/kg	--	--	--	--	--	--
Dimethyl phthalate	ug/kg	--	--	--	--	--	--
Di-n-butylphthalate	ug/kg	--	--	--	--	--	--
Di-n-octyl phthalate	ug/kg	--	--	--	--	--	--
Fluoranthene	ug/kg	--	--	--	--	--	--
Fluorene	ug/kg	--	--	--	--	--	--
Hexachlorobenzene	ug/kg	--	--	--	--	--	--
Hexachlorobutadiene	ug/kg	--	--	--	--	--	--
Hexachlorocyclopentadiene	ug/kg	--	--	--	--	--	--
Hexachloroethane	ug/kg	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	ug/kg	--	--	--	--	--	--
Isophorone	ug/kg	--	--	--	--	--	--
Naphthalene	ug/kg	--	--	--	--	--	--
Nitrobenzene	ug/kg	--	--	--	--	--	--
N-Nitrosodi-n-propylamine	ug/kg	--	--	--	--	--	--
N-Nitrosodiphenylamine	ug/kg	--	--	--	--	--	--
Pentachlorophenol	ug/kg	--	--	--	--	--	--
Phenanthrene	ug/kg	--	--	--	--	--	--
Phenol	ug/kg	--	--	--	--	--	--



TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

	Location ID:	36 Lester	36 Lester	36 Lester	55 Lester North	55 Lester North	55 Lester South
	Sample Name:	SS-37191-050708-CMB-007	SS-37191-050708-CMB-008	SS-37191-050708-CMB-009	SS-37191-050808-CMB-001	SS-37191-050808-CMB-002	SS-37191-050808-CMB-003
	Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/8/2008	5/8/2008	5/8/2008
	Depth:	0 - 0.17 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft
	Sample Type:	(Orig.)	Duplicate	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
Pyrene	ug/kg	--	--	--	--	--	--
<b>VOAs</b>							
1,1,1-Trichloroethane	ug/kg	--	--	--	--	--	--
1,1,2,2-Tetrachloroethane	ug/kg	--	--	--	--	--	--
1,1,2-Trichloroethane	ug/kg	--	--	--	--	--	--
1,1-Dichloroethane	ug/kg	--	--	--	--	--	--
1,1-Dichloroethene	ug/kg	--	--	--	--	--	--
1,2,4-Trichlorobenzene	ug/kg	--	--	--	--	--	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/kg	--	--	--	--	--	--
1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	--	--	--	--	--	--
1,2-Dichlorobenzene	ug/kg	--	--	--	--	--	--
1,2-Dichloroethane	ug/kg	--	--	--	--	--	--
1,2-Dichloropropane	ug/kg	--	--	--	--	--	--
1,3-Dichlorobenzene	ug/kg	--	--	--	--	--	--
1,4-Dichlorobenzene	ug/kg	--	--	--	--	--	--
2-Butanone (Methyl Ethyl Ketone)	ug/kg	--	--	--	--	--	--
2-Hexanone	ug/kg	--	--	--	--	--	--
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/kg	--	--	--	--	--	--
Acetone	ug/kg	--	--	--	--	--	--
Benzene	ug/kg	--	--	--	--	--	--
Bromodichloromethane	ug/kg	--	--	--	--	--	--
Bromoform	ug/kg	--	--	--	--	--	--
Bromomethane (Methyl Bromide)	ug/kg	--	--	--	--	--	--
Carbon disulfide	ug/kg	--	--	--	--	--	--
Carbon tetrachloride	ug/kg	--	--	--	--	--	--
Chlorobenzene	ug/kg	--	--	--	--	--	--
Chloroethane	ug/kg	--	--	--	--	--	--
Chloroform (Trichloromethane)	ug/kg	--	--	--	--	--	--
Chloromethane (Methyl Chloride)	ug/kg	--	--	--	--	--	--
cis-1,2-Dichloroethene	ug/kg	--	--	--	--	--	--
cis-1,3-Dichloropropene	ug/kg	--	--	--	--	--	--
Cyclohexane	ug/kg	--	--	--	--	--	--
Dibromochloromethane	ug/kg	--	--	--	--	--	--
Dichlorodifluoromethane (CFC-12)	ug/kg	--	--	--	--	--	--
Ethylbenzene	ug/kg	--	--	--	--	--	--
Isopropylbenzene	ug/kg	--	--	--	--	--	--
Methyl acetate	ug/kg	--	--	--	--	--	--
Methyl cyclohexane	ug/kg	--	--	--	--	--	--
Methyl Tert Butyl Ether	ug/kg	--	--	--	--	--	--
Methylene chloride	ug/kg	--	--	--	--	--	--
Styrene	ug/kg	--	--	--	--	--	--
Tetrachloroethene	ug/kg	--	--	--	--	--	--
Toluene	ug/kg	--	--	--	--	--	--

TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

	Location ID:	36 Lester	36 Lester	36 Lester	55 Lester North	55 Lester North	55 Lester South
	Sample Name:	SS-37191-050708-CMB-007	SS-37191-050708-CMB-008	SS-37191-050708-CMB-009	SS-37191-050808-CMB-001	SS-37191-050808-CMB-002	SS-37191-050808-CMB-003
	Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/8/2008	5/8/2008	5/8/2008
	Depth:	0 - 0.17 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft
	Sample Type:	(Orig.)	Duplicate	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
trans-1,2-Dichloroethene	ug/kg	--	--	--	--	--	--
trans-1,3-Dichloropropene	ug/kg	--	--	--	--	--	--
Trichloroethene	ug/kg	--	--	--	--	--	--
Trichlorofluoromethane (CFC-11)	ug/kg	--	--	--	--	--	--
<b>VOAs</b>							
Trifluorotrchloroethane (Freon 113)	ug/kg	--	--	--	--	--	--
Vinyl chloride	ug/kg	--	--	--	--	--	--
Xylene (total)	ug/kg	--	--	--	--	--	--
<b>Wet</b>							
Cyanide (total)	mg/kg	--	--	--	--	--	--
Total Solids	%	92.9	93.6	93.6	88.3	85.4	78.5

## Notes:

J Estimated.  
PCBs Polychlorinated Biphenyls.  
SVOAs Semi-Volatile Organic Analytes  
U Not detected.  
VOAs Volatile Organic Analytes

TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

	Location ID:	55 Lester South	58 Lester	58 Lester	MW-14	MW-17	NE Harrison St WH
	Sample Name:	SS-37191-050808-CMB-004	SS-37191-050808-CMB-005	SS-37191-050808-CMB-006	SB-37191-050808-JP-011	SB-37191-050908-JP-002	SS-37191-050708-CMB-020
	Sample Date:	5/8/2008	5/8/2008	5/8/2008	5/8/2008	5/9/2008	5/7/2008
	Depth:	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 2 ft	0 - 2 ft	0 - 0.17 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<b>Herbicides</b>							
2,4,5-T	ug/kg	--	--	--	24 U	23 U	--
2,4,5-TP (Silvex)	ug/kg	--	--	--	24 U	23 U	--
2,4-DB	ug/kg	--	--	--	98 U	92 U	--
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/kg	--	--	--	98 U	92 U	--
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	ug/kg	--	--	--	9800 U	9200 U	--
Dalapon	ug/kg	--	--	--	110 U	100 U	--
Dicamba	ug/kg	--	--	--	49 U	46 U	--
Dichlorprop	ug/kg	--	--	--	98 U	92 U	--
Dinoseb	ug/kg	--	--	--	15 U	14 U	--
Mecoprop (MCPP)	ug/kg	--	--	--	9800 U	9200 U	--
<b>Metals</b>							
Aluminum	mg/kg	--	--	--	8660	18700	--
Antimony	mg/kg	--	--	--	1.2 U	1.2 U	--
Arsenic	mg/kg	--	--	--	5.1	5.2	--
Barium	mg/kg	--	--	--	47.0	200	--
Beryllium	mg/kg	--	--	--	0.49 U	2.9	--
Cadmium	mg/kg	--	--	--	0.54 J	1.4 J	--
Calcium	mg/kg	--	--	--	2200	110000	--
Chromium Total	mg/kg	--	--	--	11.9	63.9	--
Cobalt	mg/kg	--	--	--	3.8 J	2.6 J	--
Copper	mg/kg	--	--	--	11.9	35.3	--
Iron	mg/kg	--	--	--	15300	27300	--
Lead	mg/kg	92.1 J	348 J	385 J	48.4 J	87.3 J	15.2
Magnesium	mg/kg	--	--	--	1950	15300	--
Manganese	mg/kg	--	--	--	135 J	3240 J	--
Mercury	mg/kg	--	--	--	0.16	0.035 J	--
Nickel	mg/kg	--	--	--	11.4	12.8	--
Potassium	mg/kg	--	--	--	892	1350	--
Selenium	mg/kg	--	--	--	0.49 J	1.2	--
Silver	mg/kg	--	--	--	0.61 U	0.88	--
Sodium	mg/kg	--	--	--	41.7 J	527 J	--
Thallium	mg/kg	--	--	--	1.2 U	2.3 U	--
Vanadium	mg/kg	--	--	--	19.3	24.3	--
Zinc	mg/kg	--	--	--	71.7	169	--
<b>PCBs</b>							
Aroclor-1016 (PCB-1016)	ug/kg	--	--	--	20 U	19 U	--
Aroclor-1221 (PCB-1221)	ug/kg	--	--	--	20 U	19 U	--
Aroclor-1232 (PCB-1232)	ug/kg	--	--	--	20 U	19 U	--
Aroclor-1242 (PCB-1242)	ug/kg	--	--	--	20 U	19 U	--
Aroclor-1248 (PCB-1248)	ug/kg	--	--	--	20 U	19 U	--
Aroclor-1254 (PCB-1254)	ug/kg	--	--	--	20 U	19 U	--
Aroclor-1260 (PCB-1260)	ug/kg	--	--	--	11 J	14 J	--

TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

	Location ID:	55 Lester South	58 Lester	58 Lester	MW-14	MW-17	NE Harrison St WH
	Sample Name:	SS-37191-050808-CMB-004	SS-37191-050808-CMB-005	SS-37191-050808-CMB-006	SB-37191-050808-JP-011	SB-37191-050908-JP-002	SS-37191-050708-CMB-020
	Sample Date:	5/8/2008	5/8/2008	5/8/2008	5/8/2008	5/9/2008	5/7/2008
	Depth:	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 2 ft	0 - 2 ft	0 - 0.17 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<b>Pesticides</b>							
4,4'-DDD	ug/kg	--	--	--	2.1 U	1.5 J	--
4,4'-DDE	ug/kg	--	--	--	4.6	2.0 U	--
4,4'-DDT	ug/kg	--	--	--	3.5	2.0 U	--
Aldrin	ug/kg	--	--	--	2.1 U	2.0 U	--
alpha-BHC	ug/kg	--	--	--	2.1 U	2.0 U	--
alpha-Chlordane	ug/kg	--	--	--	2.1 U	2.0 U	--
beta-BHC	ug/kg	--	--	--	2.1 U	2.0 U	--
delta-BHC	ug/kg	--	--	--	2.1 U	2.0 U	--
Dieldrin	ug/kg	--	--	--	2.1 U	2.0 U	--
Endosulfan I	ug/kg	--	--	--	2.1 U	2.0 U	--
Endosulfan II	ug/kg	--	--	--	2.1 U	2.0 U	--
Endosulfan sulfate	ug/kg	--	--	--	2.1 U	2.0 U	--
Endrin	ug/kg	--	--	--	2.1 U	2.0 U	--
Endrin aldehyde	ug/kg	--	--	--	2.1 U	2.0 U	--
Endrin ketone	ug/kg	--	--	--	0.91 J	2.0 U	--
gamma-BHC (Lindane)	ug/kg	--	--	--	2.1 U	17 J	--
gamma-Chlordane	ug/kg	--	--	--	2.1 U	2.0 U	--
Heptachlor	ug/kg	--	--	--	2.1 U	1.6 J	--
Heptachlor epoxide	ug/kg	--	--	--	2.1 U	2.0 U	--
Methoxychlor	ug/kg	--	--	--	4.0 U	3.8 U	--
Toxaphene	ug/kg	--	--	--	81 U	77 U	--
<b>SVOAs</b>							
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/kg	--	--	--	82 U	77 U	--
2,4,5-Trichlorophenol	ug/kg	--	--	--	400 U	380 U	--
2,4,6-Trichlorophenol	ug/kg	--	--	--	400 U	380 U	--
2,4-Dichlorophenol	ug/kg	--	--	--	82 U	77 U	--
2,4-Dimethylphenol	ug/kg	--	--	--	400 U	380 U	--
2,4-Dinitrophenol	ug/kg	--	--	--	2000 U	1900 U	--
2,4-Dinitrotoluene	ug/kg	--	--	--	400 U	380 U	--
2,6-Dinitrotoluene	ug/kg	--	--	--	400 U	380 U	--
2-Chloronaphthalene	ug/kg	--	--	--	82 U	77 U	--
2-Chlorophenol	ug/kg	--	--	--	400 U	380 U	--
2-Methylnaphthalene	ug/kg	--	--	--	22 J	170	--
2-Methylphenol	ug/kg	--	--	--	400 U	380 U	--
2-Nitroaniline	ug/kg	--	--	--	2000 U	1900 U	--
2-Nitrophenol	ug/kg	--	--	--	400 U	380 U	--
3,3'-Dichlorobenzidine	ug/kg	--	--	--	400 U	380 U	--
3-Nitroaniline	ug/kg	--	--	--	2000 U	1900 U	--
4,6-Dinitro-2-methylphenol	ug/kg	--	--	--	1900 U	1800 U	--
4-Bromophenyl phenyl ether	ug/kg	--	--	--	400 U	380 U	--
4-Chloro-3-methylphenol	ug/kg	--	--	--	400 U	380 U	--
4-Chloroaniline	ug/kg	--	--	--	400 U	380 U	--

TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

	<i>Location ID:</i>	55 Lester South	58 Lester	58 Lester	MW-14	MW-17	NE Harrison St WH
	<i>Sample Name:</i>	SS-37191-050808-CMB-004	SS-37191-050808-CMB-005	SS-37191-050808-CMB-006	SB-37191-050808-JP-011	SB-37191-050908-JP-002	SS-37191-050708-CMB-020
	<i>Sample Date:</i>	5/8/2008	5/8/2008	5/8/2008	5/8/2008	5/9/2008	5/7/2008
	<i>Depth:</i>	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 2 ft	0 - 2 ft	0 - 0.17 ft
	<i>Sample Type:</i>	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	<i>Units</i>						
4-Chlorophenyl phenyl ether	ug/kg	--	--	--	400 U	380 U	--
4-Methylphenol	ug/kg	--	--	--	400 U	380 U	--
<i>SVOAs</i>							
4-Nitroaniline	ug/kg	--	--	--	2000 U	1900 U	--
4-Nitrophenol	ug/kg	--	--	--	2000 U	1900 U	--
Acenaphthene	ug/kg	--	--	--	82 U	110	--
Acenaphthylene	ug/kg	--	--	--	47 J	960	--
Acetophenone	ug/kg	--	--	--	400 U	380 U	--
Anthracene	ug/kg	--	--	--	62 J	1400	--
Atrazine	ug/kg	--	--	--	400 U	380 U	--
Benzaldehyde	ug/kg	--	--	--	400 U	380 U	--
Benzo(a)anthracene	ug/kg	--	--	--	260	3700	--
Benzo(a)pyrene	ug/kg	--	--	--	260	2800	--
Benzo(b)fluoranthene	ug/kg	--	--	--	510	5000	--
Benzo(g,h,i)perylene	ug/kg	--	--	--	150	2100	--
Benzo(k)fluoranthene	ug/kg	--	--	--	82 U	77 U	--
Biphenyl	ug/kg	--	--	--	400 U	57 J	--
bis(2-Chloroethoxy)methane	ug/kg	--	--	--	400 U	380 U	--
bis(2-Chloroethyl)ether	ug/kg	--	--	--	82 U	77 U	--
bis(2-Ethylhexyl)phthalate	ug/kg	--	--	--	400 U	720	--
Butyl benzylphthalate	ug/kg	--	--	--	400 U	380 U	--
Caprolactam	ug/kg	--	--	--	85 J	380 U	--
Carbazole	ug/kg	--	--	--	31 J	400	--
Chrysene	ug/kg	--	--	--	310	2900	--
Dibenz(a,h)anthracene	ug/kg	--	--	--	40 J	660	--
Dibenzofuran	ug/kg	--	--	--	400 U	370 J	--
Diethyl phthalate	ug/kg	--	--	--	400 U	380 U	--
Dimethyl phthalate	ug/kg	--	--	--	400 U	380 U	--
Di-n-butylphthalate	ug/kg	--	--	--	400 U	380 U	--
Di-n-octyl phthalate	ug/kg	--	--	--	400 U	380 U	--
Fluoranthene	ug/kg	--	--	--	520	7100	--
Fluorene	ug/kg	--	--	--	82 U	360	--
Hexachlorobenzene	ug/kg	--	--	--	82 U	77 U	--
Hexachlorobutadiene	ug/kg	--	--	--	82 U	77 U	--
Hexachlorocyclopentadiene	ug/kg	--	--	--	400 U	380 U	--
Hexachloroethane	ug/kg	--	--	--	400 U	380 U	--
Indeno(1,2,3-cd)pyrene	ug/kg	--	--	--	140	2100	--
Isophorone	ug/kg	--	--	--	400 U	380 U	--
Naphthalene	ug/kg	--	--	--	23 J	150	--
Nitrobenzene	ug/kg	--	--	--	82 U	77 U	--
N-Nitrosodi-n-propylamine	ug/kg	--	--	--	82 U	77 U	--
N-Nitrosodiphenylamine	ug/kg	--	--	--	400 U	380 U	--
Pentachlorophenol	ug/kg	--	--	--	400 U	380 U	--
Phenanthrene	ug/kg	--	--	--	220	4400	--
Phenol	ug/kg	--	--	--	82 U	77 U	--

TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

	Location ID:	55 Lester South	58 Lester	58 Lester	MW-14	MW-17	NE Harrison St WH
	Sample Name:	SS-37191-050808-CMB-004	SS-37191-050808-CMB-005	SS-37191-050808-CMB-006	SB-37191-050808-JP-011	SB-37191-050908-JP-002	SS-37191-050708-CMB-020
	Sample Date:	5/8/2008	5/8/2008	5/8/2008	5/8/2008	5/9/2008	5/7/2008
	Depth:	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 2 ft	0 - 2 ft	0 - 0.17 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
Pyrene	ug/kg	--	--	--	370	5100	--
<b>VOAs</b>							
1,1,1-Trichloroethane	ug/kg	--	--	--	6.1 U	5.8 U	--
1,1,2,2-Tetrachloroethane	ug/kg	--	--	--	6.1 U	5.8 U	--
1,1,2-Trichloroethane	ug/kg	--	--	--	6.1 U	5.8 U	--
1,1-Dichloroethane	ug/kg	--	--	--	6.1 U	5.8 U	--
1,1-Dichloroethene	ug/kg	--	--	--	6.1 U	5.8 U	--
1,2,4-Trichlorobenzene	ug/kg	--	--	--	6.1 U	5.8 U	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/kg	--	--	--	6.1 U	5.8 U	--
1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	--	--	--	6.1 U	5.8 U	--
1,2-Dichlorobenzene	ug/kg	--	--	--	6.1 U	5.8 U	--
1,2-Dichloroethane	ug/kg	--	--	--	6.1 U	5.8 U	--
1,2-Dichloropropane	ug/kg	--	--	--	6.1 U	5.8 U	--
1,3-Dichlorobenzene	ug/kg	--	--	--	6.1 U	5.8 U	--
1,4-Dichlorobenzene	ug/kg	--	--	--	6.1 U	5.8 U	--
2-Butanone (Methyl Ethyl Ketone)	ug/kg	--	--	--	6.1 U	5.8 U	--
2-Hexanone	ug/kg	--	--	--	6.1 U	5.8 U	--
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/kg	--	--	--	6.1 U	5.8 U	--
Acetone	ug/kg	--	--	--	24 UJ	23 UJ	--
Benzene	ug/kg	--	--	--	6.1 U	5.8 U	--
Bromodichloromethane	ug/kg	--	--	--	6.1 U	5.8 U	--
Bromoform	ug/kg	--	--	--	6.1 U	5.8 U	--
Bromomethane (Methyl Bromide)	ug/kg	--	--	--	6.1 UJ	5.8 UJ	--
Carbon disulfide	ug/kg	--	--	--	6.1 U	5.8 U	--
Carbon tetrachloride	ug/kg	--	--	--	6.1 U	5.8 U	--
Chlorobenzene	ug/kg	--	--	--	6.1 U	5.8 U	--
Chloroethane	ug/kg	--	--	--	6.1 UJ	5.8 UJ	--
Chloroform (Trichloromethane)	ug/kg	--	--	--	6.1 U	5.8 U	--
Chloromethane (Methyl Chloride)	ug/kg	--	--	--	6.1 U	5.8 U	--
cis-1,2-Dichloroethene	ug/kg	--	--	--	6.1 U	5.8 U	--
cis-1,3-Dichloropropene	ug/kg	--	--	--	6.1 U	5.8 U	--
Cyclohexane	ug/kg	--	--	--	6.1 U	5.8 U	--
Dibromochloromethane	ug/kg	--	--	--	6.1 U	5.8 U	--
Dichlorodifluoromethane (CFC-12)	ug/kg	--	--	--	6.1 U	5.8 U	--
Ethylbenzene	ug/kg	--	--	--	6.1 U	5.8 U	--
Isopropylbenzene	ug/kg	--	--	--	6.1 U	5.8 U	--
Methyl acetate	ug/kg	--	--	--	6.1 U	5.8 U	--
Methyl cyclohexane	ug/kg	--	--	--	6.1 U	5.8 U	--
Methyl Tert Butyl Ether	ug/kg	--	--	--	6.1 U	5.8 U	--
Methylene chloride	ug/kg	--	--	--	31	9.7	--
Styrene	ug/kg	--	--	--	6.1 U	5.8 U	--
Tetrachloroethene	ug/kg	--	--	--	6.1 U	5.8 U	--
Toluene	ug/kg	--	--	--	6.1 U	5.8 U	--

**TABLE 3A**  
**SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY 2008**

	<i>Location ID:</i>	<i>55 Lester South</i>	<i>58 Lester</i>	<i>58 Lester</i>	<i>MW-14</i>	<i>MW-17</i>	<i>NE Harrison St WH</i>	
	<i>Sample Name:</i>	<i>SS-37191-050808-CMB-004</i>	<i>SS-37191-050808-CMB-005</i>	<i>SS-37191-050808-CMB-006</i>	<i>SB-37191-050808-JP-011</i>	<i>SB-37191-050908-JP-002</i>	<i>SS-37191-050708-CMB-020</i>	
	<i>Sample Date:</i>	<i>5/8/2008</i>		<i>5/8/2008</i>	<i>5/8/2008</i>	<i>5/8/2008</i>	<i>5/7/2008</i>	
	<i>Depth:</i>	<i>0.15 - 0.33 ft</i>		<i>0 - 0.17 ft</i>	<i>0.15 - 0.33 ft</i>	<i>0 - 2 ft</i>	<i>0 - 0.17 ft</i>	
	<i>Sample Type:</i>	<i>(Orig.)</i>		<i>(Orig.)</i>	<i>(Orig.)</i>	<i>(Orig.)</i>	<i>(Orig.)</i>	
	<i>Units</i>							
trans-1,2-Dichloroethene	ug/kg	--	--	--	6.1 U	5.8 U	--	
trans-1,3-Dichloropropene	ug/kg	--	--	--	6.1 U	5.8 U	--	
Trichloroethene	ug/kg	--	--	--	6.1 U	5.8 U	--	
Trichlorofluoromethane (CFC-11)	ug/kg	--	--	--	6.1 U	5.8 U	--	
<b>VOAs</b>								
Trifluorotrichloroethane (Freon 113)	ug/kg	--	--	--	6.1 U	5.8 U	--	
Vinyl chloride	ug/kg	--	--	--	6.1 U	5.8 U	--	
Xylene (total)	ug/kg	--	--	--	18 U	17 U	--	
<b>Wet</b>								
Cyanide (total)	mg/kg	--	--	--	0.61 U	3.3	--	
Total Solids	%	85.1	69.1	72.2	81.8	86.9	87.1	

## Notes:

J Estimated.  
PCBs Polychlorinated Biphenyls.  
SVOAs Semi-Volatile Organic Analytes  
U Not detected.  
VOAs Volatile Organic Analytes

TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

	Location ID:	NE Harrison St WH	S Harrison St WH	S Harrison St WH	SB-18-08	Soil Mound	Soil Mound
	Sample Name:	SS-37191-050708-CMB-021	SS-37191-050708-CMB-022	SS-37191-050708-CMB-023	SB-37191-050908-JP-001	SS-37191-050708-CMB-018	SS-37191-050708-CMB-019
	Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/9/2008	5/7/2008	5/7/2008
	Depth:	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 2 ft	0 - 0.17 ft	0.15 - 0.33 ft
	Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<b>Herbicides</b>							
2,4,5-T	ug/kg	--	--	--	24 U	--	--
2,4,5-TP (Silvex)	ug/kg	--	--	--	24 U	--	--
2,4-DB	ug/kg	--	--	--	97 U	--	--
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/kg	--	--	--	97 U	--	--
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	ug/kg	--	--	--	9700 U	--	--
Dalapon	ug/kg	--	--	--	110 U	--	--
Dicamba	ug/kg	--	--	--	49 U	--	--
Dichlorprop	ug/kg	--	--	--	97 U	--	--
Dinoseb	ug/kg	--	--	--	15 U	--	--
Mecoprop (MCP)	ug/kg	--	--	--	9700 U	--	--
<b>Metals</b>							
Aluminum	mg/kg	--	--	--	8000	--	--
Antimony	mg/kg	--	--	--	1.2 U	--	--
Arsenic	mg/kg	--	--	--	5.9	--	--
Barium	mg/kg	--	--	--	161	--	--
Beryllium	mg/kg	--	--	--	1.1	--	--
Cadmium	mg/kg	--	--	--	1.1 J	--	--
Calcium	mg/kg	--	--	--	45000	--	--
Chromium Total	mg/kg	--	--	--	23.5	--	--
Cobalt	mg/kg	--	--	--	2.3 J	--	--
Copper	mg/kg	--	--	--	18.8	--	--
Iron	mg/kg	--	--	--	14200	--	--
Lead	mg/kg	33.7	738 J	742 J	104 J	30.8	2090 J
Magnesium	mg/kg	--	--	--	5200	--	--
Manganese	mg/kg	--	--	--	795 J	--	--
Mercury	mg/kg	--	--	--	0.18	--	--
Nickel	mg/kg	--	--	--	8.4	--	--
Potassium	mg/kg	--	--	--	679	--	--
Selenium	mg/kg	--	--	--	0.51 J	--	--
Silver	mg/kg	--	--	--	0.26 J	--	--
Sodium	mg/kg	--	--	--	296 J	--	--
Thallium	mg/kg	--	--	--	1.2 U	--	--
Vanadium	mg/kg	--	--	--	18.4	--	--
Zinc	mg/kg	--	--	--	166	--	--
<b>PCBs</b>							
Aroclor-1016 (PCB-1016)	ug/kg	--	--	--	20 U	--	--
Aroclor-1221 (PCB-1221)	ug/kg	--	--	--	20 U	--	--
Aroclor-1232 (PCB-1232)	ug/kg	--	--	--	20 U	--	--
Aroclor-1242 (PCB-1242)	ug/kg	--	--	--	20 U	--	--
Aroclor-1248 (PCB-1248)	ug/kg	--	--	--	20 U	--	--
Aroclor-1254 (PCB-1254)	ug/kg	--	--	--	20 U	--	--
Aroclor-1260 (PCB-1260)	ug/kg	--	--	--	20 U	--	--



TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

Location ID:	NE Harrison St WH	S Harrison St WH	S Harrison St WH	SB-18-08	Soil Mound	Soil Mound
Sample Name:	SS-37191-050708-CMB-021	SS-37191-050708-CMB-022	SS-37191-050708-CMB-023	SB-37191-050908-JP-001	SS-37191-050708-CMB-018	SS-37191-050708-CMB-019
Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/9/2008	5/7/2008	5/7/2008
Depth:	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 2 ft	0 - 0.17 ft	0.15 - 0.33 ft
Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
Units						
<b>Pesticides</b>						
4,4'-DDD	ug/kg	--	--	2.1 U	--	--
4,4'-DDE	ug/kg	--	--	3.9	--	--
4,4'-DDT	ug/kg	--	--	6.8	--	--
Aldrin	ug/kg	--	--	2.1 U	--	--
alpha-BHC	ug/kg	--	--	2.1 U	--	--
alpha-Chlordane	ug/kg	--	--	2.1 U	--	--
beta-BHC	ug/kg	--	--	2.1 U	--	--
delta-BHC	ug/kg	--	--	2.1 U	--	--
Dieldrin	ug/kg	--	--	2.1 U	--	--
Endosulfan I	ug/kg	--	--	2.1 U	--	--
Endosulfan II	ug/kg	--	--	2.1 U	--	--
Endosulfan sulfate	ug/kg	--	--	2.1 U	--	--
Endrin	ug/kg	--	--	2.1 U	--	--
Endrin aldehyde	ug/kg	--	--	2.1 U	--	--
Endrin ketone	ug/kg	--	--	2.1 U	--	--
gamma-BHC (Lindane)	ug/kg	--	--	2.1 U	--	--
gamma-Chlordane	ug/kg	--	--	2.1 U	--	--
Heptachlor	ug/kg	--	--	2.1 U	--	--
Heptachlor epoxide	ug/kg	--	--	2.1 U	--	--
Methoxychlor	ug/kg	--	--	4.0 U	--	--
Toxaphene	ug/kg	--	--	82 U	--	--
<b>SVOAs</b>						
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/kg	--	--	160 U	--	--
2,4,5-Trichlorophenol	ug/kg	--	--	790 U	--	--
2,4,6-Trichlorophenol	ug/kg	--	--	790 U	--	--
2,4-Dichlorophenol	ug/kg	--	--	160 U	--	--
2,4-Dimethylphenol	ug/kg	--	--	790 U	--	--
2,4-Dinitrophenol	ug/kg	--	--	4000 U	--	--
2,4-Dinitrotoluene	ug/kg	--	--	790 U	--	--
2,6-Dinitrotoluene	ug/kg	--	--	790 U	--	--
2-Chloronaphthalene	ug/kg	--	--	160 U	--	--
2-Chlorophenol	ug/kg	--	--	790 U	--	--
2-Methylnaphthalene	ug/kg	--	--	160 U	--	--
2-Methylphenol	ug/kg	--	--	790 U	--	--
2-Nitroaniline	ug/kg	--	--	4000 U	--	--
2-Nitrophenol	ug/kg	--	--	790 U	--	--
3,3'-Dichlorobenzidine	ug/kg	--	--	790 U	--	--
3-Nitroaniline	ug/kg	--	--	4000 U	--	--
4,6-Dinitro-2-methylphenol	ug/kg	--	--	3800 U	--	--
4-Bromophenyl phenyl ether	ug/kg	--	--	790 U	--	--
4-Chloro-3-methylphenol	ug/kg	--	--	790 U	--	--
4-Chloroaniline	ug/kg	--	--	790 U	--	--

TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

Location ID:	NE Harrison St WH	S Harrison St WH	S Harrison St WH	SB-18-08	Soil Mound	Soil Mound
Sample Name:	SS-37191-050708-CMB-021	SS-37191-050708-CMB-022	SS-37191-050708-CMB-023	SB-37191-050908-JP-001	SS-37191-050708-CMB-018	SS-37191-050708-CMB-019
Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/9/2008	5/7/2008	5/7/2008
Depth:	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 2 ft	0 - 0.17 ft	0.15 - 0.33 ft
Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
Units						
4-Chlorophenyl phenyl ether	ug/kg	--	--	790 U	--	--
4-Methylphenol	ug/kg	--	--	790 U	--	--
<b>SVOAs</b>						
4-Nitroaniline	ug/kg	--	--	4000 U	--	--
4-Nitrophenol	ug/kg	--	--	4000 U	--	--
Acenaphthene	ug/kg	--	--	160 U	--	--
Acenaphthylene	ug/kg	--	--	59 J	--	--
Acetophenone	ug/kg	--	--	790 U	--	--
Anthracene	ug/kg	--	--	65 J	--	--
Atrazine	ug/kg	--	--	790 U	--	--
Benzaldehyde	ug/kg	--	--	790 U	--	--
Benzo(a)anthracene	ug/kg	--	--	230	--	--
Benzo(a)pyrene	ug/kg	--	--	210	--	--
Benzo(b)fluoranthene	ug/kg	--	--	350	--	--
Benzo(g,h,i)perylene	ug/kg	--	--	140 J	--	--
Benzo(k)fluoranthene	ug/kg	--	--	160 U	--	--
Biphenyl	ug/kg	--	--	790 U	--	--
bis(2-Chloroethoxy)methane	ug/kg	--	--	790 U	--	--
bis(2-Chloroethyl)ether	ug/kg	--	--	160 U	--	--
bis(2-Ethylhexyl)phthalate	ug/kg	--	--	200 J	--	--
Butyl benzylphthalate	ug/kg	--	--	790 U	--	--
Caprolactam	ug/kg	--	--	790 U	--	--
Carbazole	ug/kg	--	--	59 J	--	--
Chrysene	ug/kg	--	--	210	--	--
Dibenz(a,h)anthracene	ug/kg	--	--	160 U	--	--
Dibenzofuran	ug/kg	--	--	790 U	--	--
Diethyl phthalate	ug/kg	--	--	790 U	--	--
Dimethyl phthalate	ug/kg	--	--	790 U	--	--
Di-n-butylphthalate	ug/kg	--	--	790 U	--	--
Di-n-octyl phthalate	ug/kg	--	--	790 U	--	--
Fluoranthene	ug/kg	--	--	420	--	--
Fluorene	ug/kg	--	--	160 U	--	--
Hexachlorobenzene	ug/kg	--	--	160 U	--	--
Hexachlorobutadiene	ug/kg	--	--	160 U	--	--
Hexachlorocyclopentadiene	ug/kg	--	--	790 U	--	--
Hexachloroethane	ug/kg	--	--	790 U	--	--
Indeno(1,2,3-cd)pyrene	ug/kg	--	--	130 J	--	--
Isophorone	ug/kg	--	--	790 U	--	--
Naphthalene	ug/kg	--	--	160 U	--	--
Nitrobenzene	ug/kg	--	--	160 U	--	--
N-Nitrosodi-n-propylamine	ug/kg	--	--	160 U	--	--
N-Nitrosodiphenylamine	ug/kg	--	--	790 U	--	--
Pentachlorophenol	ug/kg	--	--	790 U	--	--
Phenanthrene	ug/kg	--	--	230	--	--
Phenol	ug/kg	--	--	160 U	--	--

TABLE 3A  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

Location ID:	NE Harrison St WH	S Harrison St WH	S Harrison St WH	SB-18-08	Soil Mound	Soil Mound
Sample Name:	SS-37191-050708-CMB-021	SS-37191-050708-CMB-022	SS-37191-050708-CMB-023	SB-37191-050908-JP-001	SS-37191-050708-CMB-018	SS-37191-050708-CMB-019
Sample Date:	5/7/2008	5/7/2008	5/7/2008	5/9/2008	5/7/2008	5/7/2008
Depth:	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 2 ft	0 - 0.17 ft	0.15 - 0.33 ft
Sample Type:	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
Units						
Pyrene	ug/kg	--	--	340	--	--
<b>VOAs</b>						
1,1,1-Trichloroethane	ug/kg	--	--	6.1 U	--	--
1,1,2,2-Tetrachloroethane	ug/kg	--	--	6.1 U	--	--
1,1,2-Trichloroethane	ug/kg	--	--	6.1 U	--	--
1,1-Dichloroethane	ug/kg	--	--	6.1 U	--	--
1,1-Dichloroethene	ug/kg	--	--	6.1 U	--	--
1,2,4-Trichlorobenzene	ug/kg	--	--	6.1 U	--	--
1,2-Dibromo-3-chloropropane (DBCP)	ug/kg	--	--	6.1 U	--	--
1,2-Dibromoethane (Ethylene Dibromide)	ug/kg	--	--	6.1 U	--	--
1,2-Dichlorobenzene	ug/kg	--	--	6.1 U	--	--
1,2-Dichloroethane	ug/kg	--	--	6.1 U	--	--
1,2-Dichloropropane	ug/kg	--	--	6.1 U	--	--
1,3-Dichlorobenzene	ug/kg	--	--	6.1 U	--	--
1,4-Dichlorobenzene	ug/kg	--	--	6.1 U	--	--
2-Butanone (Methyl Ethyl Ketone)	ug/kg	--	--	6.1 U	--	--
2-Hexanone	ug/kg	--	--	6.1 U	--	--
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/kg	--	--	24 UJ	--	--
Acetone	ug/kg	--	--	6.1 U	--	--
Benzene	ug/kg	--	--	6.1 U	--	--
Bromodichloromethane	ug/kg	--	--	6.1 U	--	--
Bromoform	ug/kg	--	--	6.1 UJ	--	--
Bromomethane (Methyl Bromide)	ug/kg	--	--	6.1 U	--	--
Carbon disulfide	ug/kg	--	--	6.1 U	--	--
Carbon tetrachloride	ug/kg	--	--	6.1 U	--	--
Chlorobenzene	ug/kg	--	--	6.1 UJ	--	--
Chloroethane	ug/kg	--	--	6.1 U	--	--
Chloroform (Trichloromethane)	ug/kg	--	--	6.1 U	--	--
Chloromethane (Methyl Chloride)	ug/kg	--	--	6.1 U	--	--
cis-1,2-Dichloroethene	ug/kg	--	--	6.1 U	--	--
cis-1,3-Dichloropropene	ug/kg	--	--	6.1 U	--	--
Cyclohexane	ug/kg	--	--	6.1 U	--	--
Dibromochloromethane	ug/kg	--	--	6.1 U	--	--
Dichlorodifluoromethane (CFC-12)	ug/kg	--	--	6.1 U	--	--
Ethylbenzene	ug/kg	--	--	6.1 U	--	--
Isopropylbenzene	ug/kg	--	--	6.1 U	--	--
Methyl acetate	ug/kg	--	--	6.1 U	--	--
Methyl cyclohexane	ug/kg	--	--	6.1 U	--	--
Methyl Tert Butyl Ether	ug/kg	--	--	11	--	--
Methylene chloride	ug/kg	--	--	6.1 U	--	--
Styrene	ug/kg	--	--	6.1 U	--	--
Tetrachloroethene	ug/kg	--	--	6.1 U	--	--
Toluene	ug/kg	--	--		--	--

**TABLE 3A**  
**SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY 2008**

	<i>Location ID:</i>	<i>NE Harrison St WH</i>	<i>S Harrison St WH</i>	<i>S Harrison St WH</i>	<i>SB-18-08</i>	<i>Soil Mound</i>	<i>Soil Mound</i>
	<i>Sample Name:</i>	<i>SS-37191-050708-CMB-021</i>	<i>SS-37191-050708-CMB-022</i>	<i>SS-37191-050708-CMB-023</i>	<i>SB-37191-050908-JP-001</i>	<i>SS-37191-050708-CMB-018</i>	<i>SS-37191-050708-CMB-019</i>
	<i>Sample Date:</i>	5/7/2008	5/7/2008	5/7/2008	5/9/2008	5/7/2008	5/7/2008
	<i>Depth:</i>	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 2 ft	0 - 0.17 ft	0.15 - 0.33 ft
	<i>Sample Type:</i>	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	<i>Units</i>						
trans-1,2-Dichloroethene	ug/kg	--	--	--	6.1 U	--	--
trans-1,3-Dichloropropene	ug/kg	--	--	--	6.1 U	--	--
Trichloroethene	ug/kg	--	--	--	6.1 U	--	--
Trichlorofluoromethane (CFC-11)	ug/kg	--	--	--	6.1 U	--	--
<b>VOAs</b>							
Trifluorotrchloroethane (Freon 113)	ug/kg	--	--	--	6.1 U	--	--
Vinyl chloride	ug/kg	--	--	--	6.1 U	--	--
Xylene (total)	ug/kg	--	--	--	18 U	--	--
<b>Wet</b>							
Cyanide (total)	mg/kg	--	--	--	0.95	--	--
Total Solids	%	87.2	92.3	91.1	82.1	83.7	84.1

## Notes:

J Estimated.  
PCBs Polychlorinated Biphenyls.  
SVOAs Semi-Volatile Organic Analytes  
U Not detected.  
VOAs Volatile Organic Analytes

**TABLE 3B  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008**

	Location ID:	MW-4	MW-4	MW-5	MW-6	MW-8	MW-9
	Sample Name:	WG-37191-052808-003	WG-37191-052808-004	WG-37191-052808-008	WG-37191-052808-002	WG-37191-052808-005	WG-37191-052808-001
	Sample Date:	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008
	Sample Type:	(Orig.)	Duplicate	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<b>Eparam</b>							
Conductivity	mS/cm	54.4	--	1.7	31.2	0.887	1.47
Dissolved Oxygen	mg/L	4.32	--	2.7	4.5	0.54	0.17
Oxidation reduction potential	millivolts	8	--	195	22	45	56
pH	pH units	6.48	--	6.57	6.43	6.96	6.34
Temperature, Field	Deg C	--	--	14	--	14	13.2
Turbidity	ntu	218	--	61.3	1.4	0	8.2
<b>Herbicides</b>							
2,4,5-T	ug/L	0.95 U	0.95 U	--	--	--	0.94 U
2,4,5-TP (Silvex)	ug/L	0.95 U	0.95 U	--	--	--	0.94 U
2,4-DB	ug/L	3.8 U	3.8 U	--	--	--	3.8 U
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/L	3.8 U	3.8 U	--	--	--	3.8 U
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	ug/L	380 UJ	380 UJ	--	--	--	380 UJ
Dalapon	ug/L	4.8 U	4.8 U	--	--	--	4.7 U
Dicamba	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Dichlorprop	ug/L	3.8 U	3.8 U	--	--	--	3.8 U
Dinoseb	ug/L	0.86 U	0.86 U	--	--	--	0.85 U
Mecoprop (MCP)	ug/L	380 UJ	380 UJ	--	--	--	380 UJ
<b>Metals</b>							
Aluminum	ug/L	116 J	102 J	--	--	--	200 U
Aluminum (Dissolved)	ug/L	200 U	200 U	--	--	--	200 U
Antimony	ug/L	10.0 U	10.0 U	--	--	--	10.0 U
Antimony (Dissolved)	ug/L	10.0 U	10.0 U	--	--	--	10.0 U
Arsenic	ug/L	10.0 U	10.0 U	--	--	--	10.0 U
Arsenic (Dissolved)	ug/L	10.0 U	10.0 U	--	--	--	10.0 U
Barium	ug/L	39.5 J	38.2 J	--	--	--	29.1 J
Barium (Dissolved)	ug/L	34.5 J	33.4 J	--	--	--	28.3 J
Beryllium	ug/L	4.0 U	4.0 U	--	--	--	4.0 U
Beryllium (Dissolved)	ug/L	4.0 U	4.0 U	--	--	--	4.0 U
Cadmium	ug/L	5.0 U	5.0 U	--	--	--	5.0 U
Cadmium (Dissolved)	ug/L	5.0 U	5.0 U	--	--	--	5.0 U
Calcium	ug/L	136000	140000	--	--	--	217000
Calcium (Dissolved)	ug/L	134000	133000	--	--	--	224000
Chromium Total	ug/L	5.0 U	5.0 U	--	--	--	5.0 U
Chromium Total (Dissolved)	ug/L	5.0 U	5.0 U	--	--	--	5.0 U
Cobalt	ug/L	1.1 J	0.93 J	--	--	--	3.4 J
Cobalt (Dissolved)	ug/L	1.2 J	0.87 J	--	--	--	3.2 J
Copper	ug/L	25.0 U	25.0 U	--	--	--	25.0 U
Copper (Dissolved)	ug/L	25.0 U	25.0 U	--	--	--	25.0 U
Iron	ug/L	653 J	504 J	--	--	--	1620 J

**TABLE 3B  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008**

	Location ID:	MW-4	MW-4	MW-5	MW-6	MW-8	MW-9
	Sample Name:	WG-37191-052808-003	WG-37191-052808-004	WG-37191-052808-008	WG-37191-052808-002	WG-37191-052808-005	WG-37191-052808-001
	Sample Date:	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008
	Sample Type:	(Orig.)	Duplicate	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<b>Metals</b>							
Iron (Dissolved)	ug/L	218	207	--	--	--	620
Lead	ug/L	2.7 J	2.8 J	3.2	3.0 U	3.0 U	3.0 U
Lead (Dissolved)	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium	ug/L	37400	38100	--	--	--	36400
Magnesium (Dissolved)	ug/L	36700	36600	--	--	--	38000
Manganese	ug/L	858	864	--	--	--	317
Manganese (Dissolved)	ug/L	799	786	--	--	--	296
Mercury	ug/L	0.20 U	0.20 U	--	--	--	0.20 U
Mercury (Dissolved)	ug/L	0.20 U	0.20 U	--	--	--	0.20 U
Nickel	ug/L	2.2 J	2.0 J	--	--	--	5.4 J
Nickel (Dissolved)	ug/L	2.1 J	1.9 J	--	--	--	5.6 J
Potassium	ug/L	675 J	711 J	--	--	--	7090
Potassium (Dissolved)	ug/L	689 J	687 J	--	--	--	7150
Selenium	ug/L	5.0 U	5.0 U	--	--	--	5.0 U
Selenium (Dissolved)	ug/L	5.0 U	5.0 U	--	--	--	5.0 U
Silver	ug/L	5.0 U	5.0 U	--	--	--	5.0 U
Silver (Dissolved)	ug/L	5.0 U	5.0 U	--	--	--	5.0 U
Sodium	ug/L	133000	145000	--	--	--	32700
Sodium (Dissolved)	ug/L	138000	144000	--	--	--	34300
Thallium	ug/L	10.0 U	10.0 U	--	--	--	3.7 J
Thallium (Dissolved)	ug/L	10.0 U	10.0 U	--	--	--	10.0 U
Vanadium	ug/L	1.3 J	50.0 U	--	--	--	1.1 J
Vanadium (Dissolved)	ug/L	1.6 J	2.2 J	--	--	--	2.6 J
Zinc	ug/L	20.0 U	20.0 U	--	--	--	20.0 U
Zinc (Dissolved)	ug/L	20.0 U	20.0 U	--	--	--	20.0 U
<b>PCBs</b>							
Aroclor-1016 (PCB-1016)	ug/L	0.38 U	0.38 U	--	--	--	0.38 U
Aroclor-1221 (PCB-1221)	ug/L	0.38 U	0.38 U	--	--	--	0.38 U
Aroclor-1232 (PCB-1232)	ug/L	0.38 U	0.38 U	--	--	--	0.38 U
Aroclor-1242 (PCB-1242)	ug/L	0.38 U	0.38 U	--	--	--	0.38 U
Aroclor-1248 (PCB-1248)	ug/L	0.38 U	0.38 U	--	--	--	0.38 U
Aroclor-1254 (PCB-1254)	ug/L	0.38 U	0.38 U	--	--	--	0.38 U
Aroclor-1260 (PCB-1260)	ug/L	0.38 U	0.38 U	--	--	--	0.38 U
<b>Pesticides</b>							
4,4'-DDD	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
4,4'-DDE	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
4,4'-DDT	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
Aldrin	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
alpha-BHC	ug/L	0.047 U	0.048 U	--	--	--	0.047 U

TABLE 3B  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

	Location ID:	MW-4	MW-4	MW-5	MW-6	MW-8	MW-9
	Sample Name:	WG-37191-052808-003	WG-37191-052808-004	WG-37191-052808-008	WG-37191-052808-002	WG-37191-052808-005	WG-37191-052808-001
	Sample Date:	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008
	Sample Type:	(Orig.)	Duplicate	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<b>Pesticides</b>							
alpha-Chlordane	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
beta-BHC	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
delta-BHC	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
Dieldrin	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
Endosulfan I	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
Endosulfan II	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
Endosulfan sulfate	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
Endrin	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
Endrin aldehyde	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
Endrin ketone	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
gamma-BHC (Lindane)	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
gamma-Chlordane	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
Heptachlor	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
Heptachlor epoxide	ug/L	0.047 U	0.048 U	--	--	--	0.047 U
Methoxychlor	ug/L	0.094 U	0.095 U	--	--	--	0.094 U
Toxaphene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
<b>SVOAs</b>							
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
2,4,5-Trichlorophenol	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
2,4,6-Trichlorophenol	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
2,4-Dichlorophenol	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
2,4-Dimethylphenol	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
2,4-Dinitrophenol	ug/L	47 U	48 U	--	--	--	48 U
2,4-Dinitrotoluene	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
2,6-Dinitrotoluene	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
2-Chloronaphthalene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
2-Chlorophenol	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
2-Methylnaphthalene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
2-Methylphenol	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
2-Nitroaniline	ug/L	47 U	48 U	--	--	--	48 U
2-Nitrophenol	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
3,3'-Dichlorobenzidine	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
3-Nitroaniline	ug/L	47 U	48 U	--	--	--	48 U
4,6-Dinitro-2-methylphenol	ug/L	47 U	48 U	--	--	--	48 U
4-Bromophenyl phenyl ether	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
4-Chloro-3-methylphenol	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
4-Chloroaniline	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
4-Chlorophenyl phenyl ether	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
4-Methylphenol	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
4-Nitroaniline	ug/L	47 U	48 U	--	--	--	48 U

TABLE 3B  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

	Location ID:	MW-4	MW-4	MW-5	MW-6	MW-8	MW-9
	Sample Name:	WG-37191-052808-003	WG-37191-052808-004	WG-37191-052808-008	WG-37191-052808-002	WG-37191-052808-005	WG-37191-052808-001
	Sample Date:	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008
	Sample Type:	(Orig.)	Duplicate	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<b>SVOAs</b>							
4-Nitrophenol	ug/L	47 U	48 U	--	--	--	48 U
Acenaphthene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Acenaphthylene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Acetophenone	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Anthracene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Atrazine	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Benzaldehyde	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Benzo(a)anthracene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Benzo(a)pyrene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Benzo(b)fluoranthene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Benzo(g,h,i)perylene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Benzo(k)fluoranthene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Biphenyl	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
bis(2-Chloroethoxy)methane	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
bis(2-Chloroethyl)ether	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
bis(2-Ethylhexyl)phthalate	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
Butyl benzylphthalate	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
Caprolactam	ug/L	5.6 U	5.7 U	--	--	--	5.7 U
Carbazole	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Chrysene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Dibenz(a,h)anthracene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Dibenzofuran	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
Diethyl phthalate	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
Dimethyl phthalate	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
Di-n-butylphthalate	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
Di-n-octyl phthalate	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
Fluoranthene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Fluorene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Hexachlorobenzene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Hexachlorobutadiene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Hexachlorocyclopentadiene	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
Hexachloroethane	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
Indeno(1,2,3-cd)pyrene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Isophorone	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
Naphthalene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Nitrobenzene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
N-Nitrosodi-n-propylamine	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
N-Nitrosodiphenylamine	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Pentachlorophenol	ug/L	9.4 U	9.5 U	--	--	--	9.5 U
Phenanthrene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Phenol	ug/L	1.9 U	1.9 U	--	--	--	1.9 U
Pyrene	ug/L	1.9 U	1.9 U	--	--	--	1.9 U



TABLE 3B  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008

	Location ID:	MW-4	MW-4	MW-5	MW-6	MW-8	MW-9
	Sample Name:	WG-37191-052808-003	WG-37191-052808-004	WG-37191-052808-008	WG-37191-052808-002	WG-37191-052808-005	WG-37191-052808-001
	Sample Date:	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008
	Sample Type:	(Orig.)	Duplicate	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	Units						
<b>VOAs</b>							
1,1,1-Trichloroethane	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	71 U	71 U	12000 U	15 J	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
2-Hexanone	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Acetone	ug/L	290 U	290 U	50000 U	240 U	20 U	20 U
Benzene	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Bromoform	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Carbon disulfide	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Chlorobenzene	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Chloroethane	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	1200	1300	150000	1600	5.0 U	5.0 U
cis-1,3-Dichloropropene	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Cyclohexane	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Ethylbenzene	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Methyl acetate	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Methyl Tert Butyl Ether	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Methylene chloride	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Styrene	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	71 U	71 U	12000 U	13 J	5.0 U	5.0 U
Toluene	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U

**TABLE 3B  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008**

	<i>Location ID:</i>	<i>MW-4</i>	<i>MW-4</i>	<i>MW-5</i>	<i>MW-6</i>	<i>MW-8</i>	<i>MW-9</i>
	<i>Sample Name:</i>	WG-37191-052808-003	WG-37191-052808-004	WG-37191-052808-008	WG-37191-052808-002	WG-37191-052808-005	WG-37191-052808-001
	<i>Sample Date:</i>	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008	5/28/2008
	<i>Sample Type:</i>	(Orig.)	Duplicate	(Orig.)	(Orig.)	(Orig.)	(Orig.)
	<i>Units</i>						
<b>VOAs</b>							
trans-1,2-Dichloroethene	ug/L	27 J	29 J	12000 U	11 J	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Trichloroethene	ug/L	2200	2200	310000	630	5.0 U	5.0 U
Trichlorofluoromethane (CFC-11)	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Trifluorotrichloroethane (Freon 113)	ug/L	71 U	71 U	12000 U	59 U	5.0 U	5.0 U
Vinyl chloride	ug/L	17 J	71 U	12000 U	24 J	5.0 U	5.0 U
Xylene (total)	ug/L	210 U	210 U	38000 U	180 U	15 U	15 U
<b>Wet</b>							
Cyanide (total)	ug/L	3.4 J	2.9 J	--	--	--	2.6 J

## Notes:

J Estimated.  
PCBs Polychlorinated Biphenyls.  
SVOAs Semi-Volatile Organic Analytes  
U Not detected.  
UJ Not detected, estimated reporting limit.  
VOAs Volatile Organic Analytes

**TABLE 3B  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008**

	<i>Location ID:</i>	<i>MW-12</i>	<i>MW-12</i>	<i>MW-17</i>	<i>TRIP BLANK</i>
	<i>Sample Name:</i>	<i>WG-37191-052808-006</i>	<i>WG-37191-052808-007</i>	<i>WG-37191-052808-009</i>	<i>TB-37191-052808</i>
	<i>Sample Date:</i>	<i>5/28/2008</i>	<i>5/28/2008</i>	<i>5/28/2008</i>	<i>5/28/2008</i>
	<i>Sample Type:</i>	<i>(Orig.)</i>	<i>Duplicate</i>	<i>(Orig.)</i>	<i>(Orig.)</i>
	<i>Units</i>				
<b><i>Eparam</i></b>					
Conductivity	mS/cm	99.9 >	--	1.84	--
Dissolved Oxygen	mg/L	3.24	--	3.22	--
Oxidation reduction potential	millivolts	94	--	229	--
pH	pH units	6.43	--	6.7	--
Temperature, Field	Deg C	--	--	13	--
Turbidity	ntu	221	--	1.8	--
<b><i>Herbicides</i></b>					
2,4,5-T	ug/L	--	--	--	--
2,4,5-TP (Silvex)	ug/L	--	--	--	--
2,4-DB	ug/L	--	--	--	--
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/L	--	--	--	--
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	ug/L	--	--	--	--
Dalapon	ug/L	--	--	--	--
Dicamba	ug/L	--	--	--	--
Dichlorprop	ug/L	--	--	--	--
Dinoseb	ug/L	--	--	--	--
Mecoprop (MCCPP)	ug/L	--	--	--	--
<b><i>Metals</i></b>					
Aluminum	ug/L	--	--	--	--
Aluminum (Dissolved)	ug/L	--	--	--	--
Antimony	ug/L	--	--	--	--
Antimony (Dissolved)	ug/L	--	--	--	--
Arsenic	ug/L	--	--	--	--
Arsenic (Dissolved)	ug/L	--	--	--	--
Barium	ug/L	--	--	--	--
Barium (Dissolved)	ug/L	--	--	--	--
Beryllium	ug/L	--	--	--	--
Beryllium (Dissolved)	ug/L	--	--	--	--
Cadmium	ug/L	--	--	--	--
Cadmium (Dissolved)	ug/L	--	--	--	--
Calcium	ug/L	--	--	--	--
Calcium (Dissolved)	ug/L	--	--	--	--
Chromium Total	ug/L	--	--	--	--
Chromium Total (Dissolved)	ug/L	--	--	--	--
Cobalt	ug/L	--	--	--	--
Cobalt (Dissolved)	ug/L	--	--	--	--
Copper	ug/L	--	--	--	--
Copper (Dissolved)	ug/L	--	--	--	--
Iron	ug/L	--	--	--	--

**TABLE 3B  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008**

	<i>Location ID:</i>	<i>MW-12</i>	<i>MW-12</i>	<i>MW-17</i>	<i>TRIP BLANK</i>
	<i>Sample Name:</i>	<i>WG-37191-052808-006</i>	<i>WG-37191-052808-007</i>	<i>WG-37191-052808-009</i>	<i>TB-37191-052808</i>
	<i>Sample Date:</i>	<i>5/28/2008</i>	<i>5/28/2008</i>	<i>5/28/2008</i>	<i>5/28/2008</i>
	<i>Sample Type:</i>	<i>(Orig.)</i>	<i>Duplicate</i>	<i>(Orig.)</i>	<i>(Orig.)</i>
	<i>Units</i>				
<b>Metals</b>					
Iron (Dissolved)	ug/L	--	--	--	--
Lead	ug/L	3.0 U	3.0 U	3.0 U	--
Lead (Dissolved)	ug/L	3.0 U	3.0 U	3.0 U	--
Magnesium	ug/L	--	--	--	--
Magnesium (Dissolved)	ug/L	--	--	--	--
Manganese	ug/L	--	--	--	--
Manganese (Dissolved)	ug/L	--	--	--	--
Mercury	ug/L	--	--	--	--
Mercury (Dissolved)	ug/L	--	--	--	--
Nickel	ug/L	--	--	--	--
Nickel (Dissolved)	ug/L	--	--	--	--
Potassium	ug/L	--	--	--	--
Potassium (Dissolved)	ug/L	--	--	--	--
Selenium	ug/L	--	--	--	--
Selenium (Dissolved)	ug/L	--	--	--	--
Silver	ug/L	--	--	--	--
Silver (Dissolved)	ug/L	--	--	--	--
Sodium	ug/L	--	--	--	--
Sodium (Dissolved)	ug/L	--	--	--	--
Thallium	ug/L	--	--	--	--
Thallium (Dissolved)	ug/L	--	--	--	--
Vanadium	ug/L	--	--	--	--
Vanadium (Dissolved)	ug/L	--	--	--	--
Zinc	ug/L	--	--	--	--
Zinc (Dissolved)	ug/L	--	--	--	--
<b>PCBs</b>					
Aroclor-1016 (PCB-1016)	ug/L	--	--	--	--
Aroclor-1221 (PCB-1221)	ug/L	--	--	--	--
Aroclor-1232 (PCB-1232)	ug/L	--	--	--	--
Aroclor-1242 (PCB-1242)	ug/L	--	--	--	--
Aroclor-1248 (PCB-1248)	ug/L	--	--	--	--
Aroclor-1254 (PCB-1254)	ug/L	--	--	--	--
Aroclor-1260 (PCB-1260)	ug/L	--	--	--	--
<b>Pesticides</b>					
4,4'-DDD	ug/L	--	--	--	--
4,4'-DDE	ug/L	--	--	--	--
4,4'-DDT	ug/L	--	--	--	--
Aldrin	ug/L	--	--	--	--
alpha-BHC	ug/L	--	--	--	--

TABLE 3B  
 SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY 2008

	Location ID:	MW-12	MW-12	MW-17	TRIP BLANK
	Sample Name:	WG-37191-052808-006	WG-37191-052808-007	WG-37191-052808-009	TB-37191-052808
	Sample Date:	5/28/2008	5/28/2008	5/28/2008	5/28/2008
	Sample Type:	(Orig.)	Duplicate	(Orig.)	(Orig.)
	Units				
<i>Pesticides</i>					
alpha-Chlordane	ug/L	--	--	--	--
beta-BHC	ug/L	--	--	--	--
delta-BHC	ug/L	--	--	--	--
Dieldrin	ug/L	--	--	--	--
Endosulfan I	ug/L	--	--	--	--
Endosulfan II	ug/L	--	--	--	--
Endosulfan sulfate	ug/L	--	--	--	--
Endrin	ug/L	--	--	--	--
Endrin aldehyde	ug/L	--	--	--	--
Endrin ketone	ug/L	--	--	--	--
gamma-BHC (Lindane)	ug/L	--	--	--	--
gamma-Chlordane	ug/L	--	--	--	--
Heptachlor	ug/L	--	--	--	--
Heptachlor epoxide	ug/L	--	--	--	--
Methoxychlor	ug/L	--	--	--	--
Toxaphene	ug/L	--	--	--	--
<i>SVOAs</i>					
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	--	--	--	--
2,4,5-Trichlorophenol	ug/L	--	--	--	--
2,4,6-Trichlorophenol	ug/L	--	--	--	--
2,4-Dichlorophenol	ug/L	--	--	--	--
2,4-Dimethylphenol	ug/L	--	--	--	--
2,4-Dinitrophenol	ug/L	--	--	--	--
2,4-Dinitrotoluene	ug/L	--	--	--	--
2,6-Dinitrotoluene	ug/L	--	--	--	--
2-Chloronaphthalene	ug/L	--	--	--	--
2-Chlorophenol	ug/L	--	--	--	--
2-Methylnaphthalene	ug/L	--	--	--	--
2-Methylphenol	ug/L	--	--	--	--
2-Nitroaniline	ug/L	--	--	--	--
2-Nitrophenol	ug/L	--	--	--	--
3,3'-Dichlorobenzidine	ug/L	--	--	--	--
3-Nitroaniline	ug/L	--	--	--	--
4,6-Dinitro-2-methylphenol	ug/L	--	--	--	--
4-Bromophenyl phenyl ether	ug/L	--	--	--	--
4-Chloro-3-methylphenol	ug/L	--	--	--	--
4-Chloroaniline	ug/L	--	--	--	--
4-Chlorophenyl phenyl ether	ug/L	--	--	--	--
4-Methylphenol	ug/L	--	--	--	--
4-Nitroaniline	ug/L	--	--	--	--

TABLE 3B  
 SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY 2008

	Location ID:	MW-12	MW-12	MW-17	TRIP BLANK
	Sample Name:	WG-37191-052808-006	WG-37191-052808-007	WG-37191-052808-009	TB-37191-052808
	Sample Date:	5/28/2008	5/28/2008	5/28/2008	5/28/2008
	Sample Type:	(Orig.)	Duplicate	(Orig.)	(Orig.)
	Units				
<b>SVOAs</b>					
4-Nitrophenol	ug/L	--	--	--	--
Acenaphthene	ug/L	--	--	--	--
Acenaphthylene	ug/L	--	--	--	--
Acetophenone	ug/L	--	--	--	--
Anthracene	ug/L	--	--	--	--
Atrazine	ug/L	--	--	--	--
Benzaldehyde	ug/L	--	--	--	--
Benzo(a)anthracene	ug/L	--	--	--	--
Benzo(a)pyrene	ug/L	--	--	--	--
Benzo(b)fluoranthene	ug/L	--	--	--	--
Benzo(g,h,i)perylene	ug/L	--	--	--	--
Benzo(k)fluoranthene	ug/L	--	--	--	--
Biphenyl	ug/L	--	--	--	--
bis(2-Chloroethoxy)methane	ug/L	--	--	--	--
bis(2-Chloroethyl)ether	ug/L	--	--	--	--
bis(2-Ethylhexyl)phthalate	ug/L	--	--	--	--
Butyl benzylphthalate	ug/L	--	--	--	--
Caprolactam	ug/L	--	--	--	--
Carbazole	ug/L	--	--	--	--
Chrysene	ug/L	--	--	--	--
Dibenz(a,h)anthracene	ug/L	--	--	--	--
Dibenzofuran	ug/L	--	--	--	--
Diethyl phthalate	ug/L	--	--	--	--
Dimethyl phthalate	ug/L	--	--	--	--
Di-n-butylphthalate	ug/L	--	--	--	--
Di-n-octyl phthalate	ug/L	--	--	--	--
Fluoranthene	ug/L	--	--	--	--
Fluorene	ug/L	--	--	--	--
Hexachlorobenzene	ug/L	--	--	--	--
Hexachlorobutadiene	ug/L	--	--	--	--
Hexachlorocyclopentadiene	ug/L	--	--	--	--
Hexachloroethane	ug/L	--	--	--	--
Indeno(1,2,3-cd)pyrene	ug/L	--	--	--	--
Isophorone	ug/L	--	--	--	--
Naphthalene	ug/L	--	--	--	--
Nitrobenzene	ug/L	--	--	--	--
N-Nitrosodi-n-propylamine	ug/L	--	--	--	--
N-Nitrosodiphenylamine	ug/L	--	--	--	--
Pentachlorophenol	ug/L	--	--	--	--
Phenanthrene	ug/L	--	--	--	--
Phenol	ug/L	--	--	--	--
Pyrene	ug/L	--	--	--	--

**TABLE 3B  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008**

	<i>Location ID:</i>	<i>MW-12</i>	<i>MW-12</i>	<i>MW-17</i>	<i>TRIP BLANK</i>
	<i>Sample Name:</i>	<i>WG-37191-052808-006</i>	<i>WG-37191-052808-007</i>	<i>WG-37191-052808-009</i>	<i>TB-37191-052808</i>
	<i>Sample Date:</i>	<i>5/28/2008</i>	<i>5/28/2008</i>	<i>5/28/2008</i>	<i>5/28/2008</i>
	<i>Sample Type:</i>	<i>(Orig.)</i>	<i>Duplicate</i>	<i>(Orig.)</i>	<i>(Orig.)</i>
	<i>Units</i>				
<i>VOAs</i>					
1,1,1-Trichloroethane	ug/L	2500 U	2500 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	ug/L	2500 U	2500 U	5.0 U	5.0 U
1,1,2-Trichloroethane	ug/L	2500 U	2500 U	5.0 U	5.0 U
1,1-Dichloroethane	ug/L	2500 U	2500 U	5.0 U	5.0 U
1,1-Dichloroethene	ug/L	2500 U	2500 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	ug/L	2500 U	2500 U	5.0 U	5.0 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	2500 U	2500 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	2500 U	2500 U	5.0 U	5.0 U
1,2-Dichlorobenzene	ug/L	2500 U	2500 U	5.0 U	5.0 U
1,2-Dichloroethane	ug/L	2500 U	2500 U	5.0 U	5.0 U
1,2-Dichloropropane	ug/L	2500 U	2500 U	5.0 U	5.0 U
1,3-Dichlorobenzene	ug/L	2500 U	2500 U	5.0 U	5.0 U
1,4-Dichlorobenzene	ug/L	2500 U	2500 U	5.0 U	5.0 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	2500 U	2500 U	5.0 U	5.0 U
2-Hexanone	ug/L	2500 U	2500 U	5.0 U	5.0 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	2500 U	2500 U	5.0 U	5.0 U
Acetone	ug/L	10000 U	10000 U	21 U	15 J
Benzene	ug/L	2500 U	2500 U	5.0 U	5.0 U
Bromodichloromethane	ug/L	2500 U	2500 U	5.0 U	0.77 J
Bromoform	ug/L	2500 U	2500 U	5.0 U	5.0 U
Bromomethane (Methyl Bromide)	ug/L	2500 U	2500 U	5.0 U	5.0 U
Carbon disulfide	ug/L	2500 U	2500 U	5.0 U	5.0 U
Carbon tetrachloride	ug/L	2500 U	2500 U	5.0 U	5.0 U
Chlorobenzene	ug/L	2500 U	2500 U	5.0 U	5.0 U
Chloroethane	ug/L	2500 U	2500 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	ug/L	2500 U	2500 U	5.0 U	5.0 U
Chloromethane (Methyl Chloride)	ug/L	2500 U	2500 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	ug/L	15000	16000	1.8 J	5.0 U
cis-1,3-Dichloropropene	ug/L	2500 U	2500 U	5.0 U	5.0 U
Cyclohexane	ug/L	2500 U	2500 U	5.0 U	5.0 U
Dibromochloromethane	ug/L	2500 U	2500 U	5.0 U	5.0 U
Dichlorodifluoromethane (CFC-12)	ug/L	2500 U	2500 U	5.0 U	5.0 U
Ethylbenzene	ug/L	2500 U	2500 U	5.0 U	5.0 U
Isopropylbenzene	ug/L	2500 U	2500 U	5.0 U	5.0 U
Methyl acetate	ug/L	2500 U	2500 U	5.0 U	5.0 U
Methyl cyclohexane	ug/L	2500 U	2500 U	5.0 U	5.0 U
Methyl Tert Butyl Ether	ug/L	2500 U	2500 U	5.0 U	5.0 U
Methylene chloride	ug/L	2500 U	2500 U	5.0 U	5.0 U
Styrene	ug/L	2500 U	2500 U	5.0 U	5.0 U
Tetrachloroethene	ug/L	640 J	710 J	5.0 U	5.0 U
Toluene	ug/L	2500 U	2500 U	5.0 U	5.0 U

**TABLE 3B  
SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
MAY 2008**

	<i>Location ID</i>	<i>MW-12</i>	<i>MW-12</i>	<i>MW-17</i>	<i>TRIP BLANK</i>
	<i>Sample Name:</i>	WG-37191-052808-006	WG-37191-052808-007	WG-37191-052808-009	TB-37191-052808
	<i>Sample Date:</i>	5/28/2008	5/28/2008	5/28/2008	5/28/2008
	<i>Sample Type:</i>	(Orig.)	Duplicate	(Orig.)	(Orig.)
	<i>Units</i>				
<b>VOAs</b>					
trans-1,2-Dichloroethene	ug/L	2500 U	2500 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	ug/l	2500 U	2500 U	5.0 U	5.0 U
Trichloroethene	ug/l	81000	88000	5.1	5.0 U
Trichlorofluoromethane (CFC-11)	ug/l	2500 U	2500 U	5.0 U	5.0 U
Trifluorotrchloroethane (Freon 113)	ug/L	2500 U	2500 U	5.0 U	5.0 U
Vinyl chloride	ug/L	760 J	910 J	5.0 U	5.0 U
Xylene (total)	ug/L	7500 U	7500 U	15 U	15 U
<b>Wet</b>					
Cyanide (total)	ug/L	--	--	--	--

## Notes:

J	Estimated.
PCBs	Polychlorinated Biphenyls.
SVOAs	Semi-Volatile Organic Analytes
U	Not detected.
UJ	Not detected, estimated reporting limit.
VOAs	Volatile Organic Analytes



**TABLE 4**  
**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS**  
**SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY 2008**

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Qualified Sample Results</i>	<i>Units</i>
Volatiles	05/19/08	Bromomethane	37	SB-37191-050808-JP-011	6.1 UJ	µg/Kg
				SB-37191-050908-JP-001	6.1 UJ	µg/Kg
				SB-37191-050908-JP-002	5.8 UJ	µg/Kg
Volatiles	05/19/08	Chloroethane	34	SB-37191-050808-JP-011	6.1 UJ	µg/Kg
				SB-37191-050908-JP-001	6.1 UJ	µg/Kg
				SB-37191-050908-JP-002	5.8 UJ	µg/Kg
Volatiles	05/19/08	Acetone	37	SB-37191-050808-JP-011	6.1 UJ	µg/Kg
				SB-37191-050908-JP-001	6.1 UJ	µg/Kg
				SB-37191-050908-JP-002	5.8 UJ	µg/Kg
Volatiles	06/04/08	Bromomethane	37.5	WG-37191-052808-001	5.0 UJ	µg/L
Volatiles	06/04/08	Chloroethane	51	WG-37191-052808-001	5.0 UJ	µg/L

Notes:

%D    Percent Difference.

UJ     Not detected, estimated reporting limit.

**TABLE 5**  
**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INITIAL CALIBRATION RESULTS**  
**SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY 2008**

<i>Parameter</i>	<i>Compound</i>	<i>Calibration Date</i>	<i>R</i>	<i>%RSD</i>	<i>Associated Sample ID</i>	<i>Qualified Sample Results</i>	<i>Units</i>
Herbicides	2-Methyl-4-chlorophenoxyacetic acid (MCPA)	05/28/08	0.993	-	WG-37191-052808-001	380 UJ	µg/L
					WG-37191-052808-003	380 UJ	µg/L
					WG-37191-052808-004	380 UJ	µg/L
Herbicides	Mecoprop (MCPP)	05/28/08	-	33.4	WG-37191-052808-001	380 UJ	µg/L
					WG-37191-052808-003	380 UJ	µg/L
					WG-37191-052808-004	380 UJ	µg/L

Notes:

R Correlation Coefficient.

%RSD Percent Relative Standard Deviation.

UJ Not detected, estimated reporting limit.

**TABLE 6**  
**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE LABORATORY BLANKS**  
**SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY 2008**

<i>Parameter</i>	<i>Analysis Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
General Chemistry	05/15/08	Cyanide	0.15	SS-37191-050708-CMB-005	0.7 U	mg/Kg
				SS-37191-050708-CMB-006	0.7 U	mg/Kg
Metals	05/29/08	Antimony	0.13	SS-37191-050708-CMB-005	1.4 U	mg/Kg
				SS-37191-050708-CMB-006	1.4 U	mg/Kg
Metals	05/29/08	Thallium	0.44	SS-37191-050708-CMB-005	1.4 U	mg/Kg
				SS-37191-050708-CMB-006	1.4 U	mg/Kg
Metals	05/29/08	Antimony	0.2	SB-37191-050808-JP-011	1.2 U	mg/Kg
				SB-37191-050908-JP-001	1.2 U	mg/Kg
				SB-37191-050908-JP-002	1.2 U	mg/Kg
Metals	05/29/08	Beryllium	0.09	SB-37191-050808-JP-011	0.49 U	mg/Kg
Metals	05/29/08	Silver	0.04	SB-37191-050808-JP-011	0.61 U	mg/Kg
Volatiles	06/04/08	Acetone	13	WG-37191-052808-001	20 U	µg/L
Volatiles	06/04/08	Methylene chloride	1.3	WG-37191-052808-001	5.0 U	µg/L
Volatiles	06/04/08	Acetone	19	WG-37191-052808-002	240 U	µg/L
				WG-37191-052808-003	290 U	µg/L
				WG-37191-052808-004	290 U	µg/L
				WG-37191-052808-005	20 U	µg/L
				WG-37191-052808-006	10000 U	µg/L
				WG-37191-052808-007	10000 U	µg/L
				WG-37191-052808-008	50000 U	µg/L
				WG-37191-052808-009	21 U	µg/L
				Metals	6/6/2008	Aluminum

**TABLE 6**  
**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE LABORATORY BLANKS**  
**SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY 2008**

<i>Parameter</i>	<i>Analysis Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
Metals	6/6/2008	Aluminum (Dissolved)	16	WG-37191-052808-001	200 U	µg/L
				WG-37191-052808-003	200 U	µg/L
				WG-37191-052808-004	200 U	µg/L
Metals	6/6/2008	Copper	0.8	WG-37191-052808-001	25.0 U	µg/L
				WG-37191-052808-003	25.0 U	µg/L
				WG-37191-052808-004	25.0 U	µg/L
Metals	6/6/2008	Copper (Dissolved)	0.8	WG-37191-052808-001	25.0 U	µg/L
Metals	6/6/2008	Thallium (Dissolved)	6.2	WG-37191-052808-001	10.0 U	µg/L
Metals	6/6/2008	Zinc	4.5	WG-37191-052808-001	20.0 U	µg/L
				WG-37191-052808-003	20.0 U	µg/L
				WG-37191-052808-004	20.0 U	µg/L
Metals	6/6/2008	Zinc (Dissolved)	1.8	WG-37191-052808-001	20.0 U	µg/L
				WG-37191-052808-003	20.0 U	µg/L
				WG-37191-052808-004	20.0 U	µg/L

## Notes:

U Not Detected.

TABLE 7  
**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES**  
**SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY 2008**

Parameter	Associated Sample ID	Analyte	MS Recovery (percent)	MSD Recovery (percent)	RPD	Control Limits		Qualified Sample Result	Units
						Recovery (percent)	RPD (percent)		
Metals	SS-37191-050708-CMB-005	Chromium	2.2	7.3	3.5	75-125	0-20	16.9 J	mg/Kg
	SS-37191-050708-CMB-006							16.4 J	mg/Kg
Metals	SS-37191-050708-CMB-005	Copper	104	50	23	75-125	0-20	28.8 J	mg/Kg
	SS-37191-050708-CMB-006							27.7 J	mg/Kg
Metals	SS-37191-050708-CMB-005	Zinc	83	22	19	75-125	0-20	152 J	mg/Kg
	SS-37191-050708-CMB-006							146 J	mg/Kg
Metals	SS-37191-050808-CMB-001	Lead	55	132	45	75-125	0-20	66.9 J	mg/Kg
	SS-37191-050808-CMB-002							30.6 J	mg/Kg
	SS-37191-050808-CMB-003							46.3 J	mg/Kg
	SS-37191-050808-CMB-004							92.1 J	mg/Kg
	SS-37191-050808-CMB-005							348 J	mg/Kg
	SS-37191-050808-CMB-006							385 J	mg/Kg
	SS-37191-050808-CMB-007							211 J	mg/Kg
	SS-37191-050808-CMB-008							148 J	mg/Kg
	SS-37191-050808-CMB-009							364 J	mg/Kg
	SS-37191-050808-CMB-010							632 J	mg/Kg
	SB-37191-050808-JP-011							48.4 J	mg/Kg
	SB-37191-050908-JP-001							104 J	mg/Kg
	SB-37191-050908-JP-002							87.3 J	mg/Kg
	Metals							SB-37191-050808-JP-011	Manganese
SB-37191-050908-JP-001		795 J	mg/Kg						
SB-37191-050908-JP-002		3240 J	mg/Kg						
Metals	WG-37191-052808-001	Iron	56	66	4.2	75-125	0-20	1620 J	µg/L
	WG-37191-052808-003							653 J	µg/L
	WG-37191-052808-004							504 J	µg/L

Notes:

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

**TABLE 8**  
**QUALIFIED SAMPLE RESULTS DUE TO OUTLYING ICSA/ICSAB RESULTS**  
**SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY 2008**

<i>Parameter</i>	<i>Analyte</i>	<i>ICSA Result ug/L</i>	<i>Reporting Limit (+/- RL) ug/L</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
Metals	Cadmium	6	5	SS-37191-050708-CMB-005	1.2 J	mg/Kg
				SS-37191-050708-CMB-006	1.1 J	mg/Kg
				SB-37191-050808-JP-011	0.54 J	mg/Kg
				SB-37191-050908-JP-001	1.1 J	mg/Kg
				SB-37191-050908-JP-002	1.4 J	mg/Kg
Metals	Lead	-5	3	SS-37191-050708-CMB-013	82.9 J	mg/Kg
				SS-37191-050708-CMB-017	59 J	mg/Kg
				SS-37191-050708-CMB-019	2090 J	mg/Kg
				SS-37191-050708-CMB-022	738 J	mg/Kg
				SS-37191-050708-CMB-023	742 J	mg/Kg
				SS-37191-050808-CMB-001	66.9 J	mg/Kg
				SS-37191-050808-CMB-002	30.6 J	mg/Kg
				SS-37191-050808-CMB-003	46.3 J	mg/Kg
				SS-37191-050808-CMB-004	92.1 J	mg/Kg
				SS-37191-050808-CMB-005	348 J	mg/Kg
				SS-37191-050808-CMB-006	385 J	mg/Kg
				SS-37191-050808-CMB-007	211 J	mg/Kg
				SS-37191-050808-CMB-008	148 J	mg/Kg
				SS-37191-050808-CMB-009	364 J	mg/Kg
				SS-37191-050808-CMB-010	632 J	mg/Kg
				SB-37191-050808-JP-011	48.4 J	mg/Kg
				SB-37191-050908-JP-001	104 J	mg/Kg
SB-37191-050908-JP-002	87.3 J	mg/Kg				

Notes:

- ICSA Interference Check Standard A.
- J Estimated.
- RL Reporting Limit.

**TABLE 9**  
**QUALIFIED SAMPLES RESULTS DUE TO OUTLYING SERIAL DILUTIONS**  
**SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**MAY 2008**

<i>Sample ID</i>	<i>Analyte</i>	<i>%D</i>	<i>Control Limits</i>	<i>Associated Samples</i>	<i>Qualified Sample Results</i>	<i>Units</i>
SS-37191-050708-CMB-001	Nickel	11.5	0-10	SS-37191-050708-CMB-005	13.5 J	mg/Kg
				SS-37191-050708-CMB-006	12.8 J	mg/Kg
SB-37191-050808-JP-011	Cobalt	12.9	0-10	SB-37191-050808-JP-011	3.8 J	mg/Kg
				SB-37191-050908-JP-001	2.3 J	mg/Kg
				SB-37191-050908-JP-002	2.6 J	mg/Kg

Notes:

%D Percent Difference.

J Estimated.

TABLE 10  
 QUALIFIED SAMPLE RESULTS DUE TO DIFFERENCES IN DUAL COLUMN RESULTS  
 SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 MAY 2008

<i>Parameter</i>	<i>Compound</i>	<i>Associated Sample ID</i>	<i>%D</i>	<i>Qualified Sample Results</i>	<i>Units</i>
Pesticides	gamma-BHC	SB-37191-050808-JP-011	83	2.1 U	µg/Kg
	4,4'-DDD		55	2.1 U	µg/Kg
	gamma-Chlordane		140	2.1 U	µg/Kg
Pesticides	gamma-BHC	SB-37191-050908-JP-001	75	2.1 U	µg/Kg
	Endrin ketone		77	2.1 U	µg/Kg
	4,4'-DDD		370	2.1 U	µg/Kg
	alpha-Chlordane		84	2.1 U	µg/Kg
	gamma-Chlordane		64	2.1 U	µg/Kg
Pesticides	delta-BHC	SB-37191-050908-JP-002	165	2.0 U	µg/Kg
	gamma-BHC		53	17 J	µg/Kg
	Endrin ketone		73	2.0 U	µg/Kg
	4,4'-DDT		76	2.0 U	µg/Kg

Notes:

- %D Percent Difference.
- BHC Benzene Hexachloride.
- DDD Dichlorodiphenyl Dichloroethane.
- DDT Dichlorodiphenyl Trichloroethane.
- J Estimated.
- U Not Detected.





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## MEMORANDUM

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TO: Chris Barton REF. NO.: 037191

FROM: Susan Scrocchi/jbh/1 *SCS* DATE: February 12, 2008  
E-Mail and Hard Copy if Requested

RE: **Analytical Results and QA/QC Review  
Groundwater and Soil Investigation  
Former Buffalo China Site  
Buffalo, New York  
July - August 2007**

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The following details a quality assessment and validation of the analytical data resulting from the July and August 2007 collection of groundwater and soil samples from the Former Buffalo China Site in Buffalo, New York. The sample summary detailing sample identification, sample location, quality control (QC) samples, and analytical parameters is presented in Table 1. Sample analysis was completed at TestAmerica Laboratories (TA), 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 QC criteria used to assess the data were established by the methods and with the 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 organic compounds and metals 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) – Volatile Organic Compounds (VOCs) and Semi-Volatile Organic Compounds (SVOCs)

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.

GC/MS Initial Calibration – VOCs and SVOCs

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 ( $R^2$ ) 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 sensitivity. Some SVOC compounds exhibited a high standard deviation, therefore not meeting the linearity criteria. All associated results were qualified as estimated (see Table 4).

GC/MS Continuing Calibration – VOCs and SVOCs

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. 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 most analytes. Some VOCs and SVOCs exhibited

variability between the initial and continuing response factors. All associated results were qualified as estimated (see Table 5).

#### GC Initial Calibration – Pesticides, Herbicides, and Polychlorinated Biphenyls (PCBs)

To quantify compounds of interest, calibration of the GC over a specific concentration range must be performed. Initially, five-point calibration curves are analyzed for all the pesticides and herbicides of interest. PCB calibration curves are analyzed for Aroclors 1016 and 1260 only. A single point calibration is performed for the remaining Aroclors of interest.

Linearity of the calibration curves are acceptable if percent %RSD values are less than or equal to 20 percent or if the coefficient of determination ( $R^2$ ) is greater than 0.99. Retention time (RT) windows are also calculated from the initial calibration analyses. These windows are then used to identify all compounds of interest in subsequent analyses.

Initial calibration standards were analyzed at the required frequencies. All RT and linearity criteria were satisfied.

#### GC Continuing Calibration – Pesticides, Herbicides and PCBs

To ensure that the calibration of the instrument is valid throughout the sample analysis period, continuing calibration standards are analyzed and evaluated on a regular basis. To evaluate the continued linearity of the calibration, %D values are calculated for each compound in all continuing standards and assessed against an acceptance criterion of 15 percent.

To ensure that compound RTs do not vary over the analysis period, all RTs must fall within the established RT windows.

Continuing calibration standards were analyzed at the required frequency, and all method criteria were met for analyte linearity with the exception of some pesticides and herbicides exhibiting a %D greater than 15. All associated sample results were qualified as estimated (see 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. Mercury analysis by cold vapor atomic absorption spectroscopy (CVAA) requires the analysis of a calibration blank and a minimum of five standards to establish the calibration curve. The coefficient of variation for calibration curves must exceed 0.995.

Initial calibration is verified with an initial calibration verification (ICV) standard which must recover within 90 to 110 percent for metals by ICP and 80 to 120 percent for mercury by CVAA.

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 exception of methylene chloride and various metals present at low level concentrations. All associated positive sample results with similar concentrations were qualified as non-detect (see Table 6).

### 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 with the exception of beryllium present on September 7, 2007. All associated positive sample results with similar concentrations were qualified as non-detect (see Table 6).

### 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 with the exception of high SVOC surrogates for sample GW-37191-082107-RN-007. All associated positive sample results were qualified as estimated (see Table 7) and all non-detect results would not have been impacted by the implied high bias.

### 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 following exceptions:

- i) high aluminum and cyanide recoveries were observed. All associated positive results were qualified as estimated and all non-detect results would not have been impacted by the implied high bias;
- ii) due to matrix interference, the 4,4'-dichlorodiphenyltrichloroethane (DDT) recoveries could not be calculated. The associated sample result was qualified as estimated; and
- iii) high variability was observed between trichloroethene recoveries. The associated sample result was qualified as estimated.

A summary of the qualified data is presented in Table 8.

#### 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. Some LCS analyses were performed in duplicate to monitor laboratory precision.

The LCS percent recoveries were all within the laboratory control limits indicating acceptable analytical accuracy and precision (where applicable).

#### 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 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 RT data were within the acceptance criteria for all VOC and SVOC samples.

#### 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 RT 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 five field duplicate sample sets 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.

Most field duplicate results were acceptable indicating good field and analytical precision. Some variability was observed between VOC and metals concentrations. The samples and the associated field duplicate were qualified as estimated to reflect the implied variability (see Table 9).

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.

Dual Column Analysis

Pesticide analyses were performed using dual column analyses. In general, the pesticide results showed good correlation between the two columns. Variability was observed between some of the results (see Table 10). The associated data were qualified as estimated to reflect the implied variability.

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 herein.

TABLE 1  
 SAMPLE COLLECTION AND ANALYSIS SUMMARY  
 GROUNDWATER AND SOIL INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

Sample I.D.	Location I.D.	Collection Date (mm/dd/yy)	Collection Time (hr:min)	Start Depth (ft bgs)	End Depth (ft bgs)	Analysis/Parameters										Comments
						TCL VOCs	TCL SVOCs	Lead	TAL Metals + Cn	Pesticides	Herbicides	PCBs	Dissolved Metals	Diss. Lead		
SO-37191-072507-RN-SB-1	SB-1-07	07/25/07	10:11	2	4	X	X		X	X	X	X				
SO-37191-072507-RN-SB-05	SB-5-07	07/25/07	12:44	4	8	X	X		X	X	X	X				
SO-37191-072507-RN-SB-10	SB-10-07	07/25/07	13:24	3	8	X	X	X								
SO-37191-072507-RN-SB-9	SB-9-07	07/25/07	13:50	3	6	X	X	X								
SO-37191-072507-RN-SB-7	SB-7-07	07/25/07	14:21	3	6	X	X	X								
SO-37191-072507-RN-SB-8	SB-8-07	07/25/07	14:55	3.5	8	X	X		X	X	X	X				
SO-37191-072607-RN-SB-11	SB-11-07	07/26/07	8:53	2	6	X	X	X								
SO-37191-072607-RN-SB-15	SB-15-07	07/26/07	9:33	4	8	X	X	X								
SO-37191-072607-RN-SB-12	SB-12-07	07/26/07	10:11	3.5	6	X	X		X	X	X	X				
SO-37191-072607-RN-SB-13	SB-13-07	07/26/07	11:00	6	8	X	X	X								
SO-37191-072607-RN-SB-16	SB-16-07	07/26/07	12:54	4	8	X	X	X								
SO-37191-072607-RN-SB-14	SB-14-07	07/26/07	13:45	4	8	X	X	X								
SO-37191-072707-RN-SB-2	SB-2-07	07/27/07	11:15	6.5	8	X	X	X								
SO-37191-072707-RN-SB-20	SB-2-07	07/27/07	11:25	6.5	8	X	X	X								Field duplicate of SO-37191-072707-RN-SB-2
SO-37191-072707-RN-SB-3	SB-3-07	07/27/07	12:45	10	13	X	X		X	X	X	X				
SO-37191-072707-RN-SB-4	SB-4-07	07/27/07	14:56	2	4	X	X	X								
SO-37191-072707-RN-SB-17	SB-17-07	07/27/07	16:00	6	10	X	X	X								
SO-37191-072707-RN-SB-27	SB-17-07	07/27/07	15:35	6	10	X	X	X								Field duplicate of SO-37191-072707-RN-SB-17
SO-37191-073007-CB-SB6	SB-6-07	07/30/07	10:15	6	10.4	X	X	X								
SO-37191-073007-CB-SB19	SB-6-07	07/30/07	10:25	6	10.4	X	X	X								Field duplicate of SO-37191-073007-CB-SB6
SO-37191-073007-CB-SB-18	SB-18-07	07/30/07	11:22	4	7.2	X	X		X	X	X	X				
WG-37191-082107-RN-001	MW-4	08/21/07	13:30	-	-	X	X		X	X	X	X	X			
WG-37191-082107-RN-002	MW-4	08/21/07	13:50	-	-	X	X		X	X	X	X	X			Field duplicate of WG-37191-082107-RN-001
WG-37191-082107-RN-003	MW-5	08/21/07	14:20	-	-	X		X								X
WG-37191-082107-RN-004	MW-12	08/21/07	15:10	-	-	X		X								X
WG-37191-082107-RN-005	MW-12	08/21/07	15:45	-	-	X		X								X





TABLE 2  
SUMMARY OF ANALYTICAL METHODS  
GROUNDWATER AND SOIL SAMPLING  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

<i>Parameter</i>	<i>Method</i> <sup>1</sup>
<i>Soil</i>	
TCL VOCs	SW-846 8260B
TCL SVOCs	SW-846 8270C
TCL Pesticides	SW-846 8081
Herbicides	SW-846 8151
Polychlorinated Biphenyls	SW-846 8082
TAL Metals	SW-846 6010/7000 Series
Cyanide	SW-846 9012
<i>Groundwater</i>	
TCL VOCs	SW-846 8260B
TCL SVOCs	SW-846 8270C
TCL Pesticides	SW-846 8081
Herbicides	SW-846 8151
Polychlorinated Biphenyls	SW-846 8082
TAL Metals (total and dissolved)	SW-846 6010/7000 Series
Cyanide (total and dissolved)	SW-846 9012

Notes:

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

SVOCs Semi-Volatile Organic Compounds.

TAL Target Analyte List.

TCL Target Compound List.

VOCs Volatile Organic Compounds.

TABLE 3A

ANALYTICAL RESULTS SUMMARY  
GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	MW-5/BH-5	MW-8/BH-15	MW-9/BH-1	MW-12
Sample Name:	WG-37191-082107-RN-003	WG-37191-082107-RN-006	WG-37191-082107-RN-007	WG-37191-082107-RN-004
Sample Date:	8/21/2007	8/21/2007	8/21/2007	8/21/2007

Parameters	Units	New York State Water Quality						
		Standards	Guidance Values					
<b>Volatile Organic Compounds</b>								
1,1,1-Trichloroethane	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U	
1,1,2,2-Tetrachloroethane	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U	
1,1,2-Trichloroethane	ug/L	1	NC	9800 J	5.0 U	5.0 U	15000 U	
1,1-Dichloroethane	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U	
1,1-Dichloroethene	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U	
1,2,4-Trichlorobenzene	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U	
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	12000 U	5.0 U	5.0 U	15000 U	
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	12000 U	5.0 U	5.0 U	15000 U	
1,2-Dichlorobenzene	ug/L	3	NC	12000 U	5.0 U	5.0 U	15000 U	
1,2-Dichloroethane	ug/L	0.6	NC	12000 U	5.0 U	5.0 U	15000 U	
1,2-Dichloropropane	ug/L	1	NC	12000 U	5.0 U	5.0 U	15000 U	
1,3-Dichlorobenzene	ug/L	3	NC	12000 U	5.0 U	5.0 U	15000 U	
1,4-Dichlorobenzene	ug/L	3	NC	12000 U	5.0 U	5.0 U	15000 U	
2-Butanone (Methyl Ethyl Ketone)	ug/L	50	50	12000 U	5.0 U	5.0 U	15000 U	
2-Hexanone	ug/L	50	50	12000 U	5.0 U	5.0 U	15000 U	
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	12000 U	5.0 U	5.0 U	15000 U	
Acetone	ug/L	NC	50	50000 U	20 UJ	20 UJ	60000 UJ	
Benzene	ug/L	1	NC	12000 U	5.0 U	5.0 U	15000 U	
Bromodichloromethane	ug/L	50	50	12000 U	5.0 U	5.0 U	15000 U	
Bromoform	ug/L	50	50	12000 U	5.0 U	5.0 U	15000 U	
Bromomethane (Methyl Bromide)	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U	
Carbon disulfide	ug/L	NC	60	12000 U	5.0 U	5.0 U	15000 U	
Carbon tetrachloride	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U	
Chlorobenzene	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U	
Chloroethane	ug/L	5	NC	12000 UJ	5.0 U	5.0 U	15000 U	
Chloroform (Trichloromethane)	ug/L	7	NC	12000 U	5.0 U	5.0 U	15000 U	
Chloromethane (Methyl Chloride)	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U	
cis-1,2-Dichloroethene	ug/L	5	NC	240000	1.0 J	5.0 U	65000 J	
cis-1,3-Dichloropropene	ug/L	NC	NC	12000 U	5.0 U	5.0 U	15000 U	
Cyclohexane	ug/L	NC	NC	12000 U	5.0 U	5.0 U	15000 U	
Dibromochloromethane	ug/L	50	50	12000 U	5.0 U	5.0 U	15000 U	
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	12000 U	5.0 UJ	5.0 UJ	15000 UJ	
Ethylbenzene	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U	
Isopropylbenzene	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U	
Methyl acetate	ug/L	NC	NC	12000 U	5.0 U	5.0 U	15000 U	
Methyl cyclohexane	ug/L	NC	NC	12000 U	5.0 U	5.0 U	15000 U	
Methyl Tert Butyl Ether	ug/L	NC	10	12000 U	5.0 U	5.0 U	15000 U	
Methylene chloride	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U	

ANALYTICAL RESULTS SUMMARY  
GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID: MW-5/BH-5 MW-8/BH-15 MW-9/BH-1 MW-12  
Sample Name: WG-37191-082107-RN-003 WG-37191-082107-RN-006 WG-37191-082107-RN-007 WG-37191-082107-RN-004  
Sample Date: 8/21/2007 8/21/2007 8/21/2007 8/21/2007

Parameters	Units	New York State Water Quality					
		Standards	Guidance Values				
<b>Volatiles (Cont'd.)</b>							
Styrene	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U
Tetrachloroethene	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U
Toluene	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U
trans-1,2-Dichloroethene	ug/L	5	NC	12000 U	5.0 U	5.0 U	15000 U
trans-1,3-Dichloropropene	ug/L	NC	NC	12000 U	5.0 U	5.0 U	15000 U
Trichloroethene	ug/L	5	NC	55000	3.2 J	5.0 U	19000 J
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	12000 UJ	5.0 U	5.0 U	15000 U
Trifluorotrichloroethane (Freon 113)	ug/L	5	NC	12000 U	5.0 UJ	5.0 UJ	15000 UJ
Vinyl chloride	ug/L	2	NC	12000 U	5.0 U	5.0 U	15000 U
Xylene (total)	ug/L	NC	NC	38000 U	15 U	15 U	45000 U
<b>Semi-Volatile Organic Compounds</b>							
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5	NC	--	--	2.0 U	--
2,4,5-Trichlorophenol	ug/L	NC	NC	--	--	9.9 U	--
2,4,6-Trichlorophenol	ug/L	NC	NC	--	--	9.9 U	--
2,4-Dichlorophenol	ug/L	5	NC	--	--	2.0 U	--
2,4-Dimethylphenol	ug/L	NC	50	--	--	9.9 U	--
2,4-Dinitrophenol	ug/L	NC	10	--	--	50 UJ	--
2,4-Dinitrotoluene	ug/L	5	NC	--	--	9.9 U	--
2,6-Dinitrotoluene	ug/L	5	NC	--	--	9.9 U	--
2-Chloronaphthalene	ug/L	NC	10	--	--	2.0 U	--
2-Chlorophenol	ug/L	NC	NC	--	--	9.9 U	--
2-Methylnaphthalene	ug/L	NC	NC	--	--	0.62 J	--
2-Methylphenol	ug/L	NC	NC	--	--	9.9 U	--
2-Nitroaniline	ug/L	5	NC	--	--	50 U	--
2-Nitrophenol	ug/L	NC	NC	--	--	9.9 U	--
3,3'-Dichlorobenzidine	ug/L	5	NC	--	--	9.9 U	--
3-Nitroaniline	ug/L	5	NC	--	--	50 U	--
4,6-Dinitro-2-methylphenol	ug/L	NC	NC	--	--	50 U	--
4-Bromophenyl phenyl ether	ug/L	NC	NC	--	--	9.9 U	--
4-Chloro-3-methylphenol	ug/L	NC	NC	--	--	9.9 U	--
4-Chloroaniline	ug/L	5	NC	--	--	9.9 U	--
4-Chlorophenyl phenyl ether	ug/L	NC	NC	--	--	9.9 U	--
4-Methylphenol	ug/L	NC	NC	--	--	9.9 U	--
4-Nitroaniline	ug/L	5	NC	--	--	50 U	--
4-Nitrophenol	ug/L	NC	NC	--	--	50 U	--
Acenaphthene	ug/L	NC	20	--	--	2.0 U	--
Acenaphthylene	ug/L	NC	NC	--	--	2.0 U	--



ANALYTICAL RESULTS SUMMARY  
GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	MW-5/BH-5	MW-8/BH-15	MW-9/BH-1	MW-12
Sample Name:	WG-37191-082107-RN-003	WG-37191-082107-RN-006	WG-37191-082107-RN-007	WG-37191-082107-RN-004
Sample Date:	8/21/2007	8/21/2007	8/21/2007	8/21/2007

Parameters	Units	New York State Water Quality					
		Standards	Guidance Values				
<i>Semi-Volatiles (Cont'd.)</i>							
Acetophenone	ug/L	NC	NC	--	--	2.0 U	--
Anthracene	ug/L	NC	50	--	--	2.0 U	--
Atrazine	ug/L	7.5	NC	--	--	2.0 U	--
Benzaldehyde	ug/L	NC	NC	--	--	2.0 U	--
Benzo(a)anthracene	ug/L	NC	0.002	--	--	2.0 U	--
Benzo(a)pyrene	ug/L	NC	NC	--	--	2.0 U	--
Benzo(b)fluoranthene	ug/L	NC	0.002	--	--	2.0 U	--
Benzo(g,h,i)perylene	ug/L	NC	NC	--	--	2.0 U	--
Benzo(k)fluoranthene	ug/L	NC	0.002	--	--	2.0 U	--
Biphenyl	ug/L	5	NC	--	--	2.0 U	--
bis(2-Chloroethoxy)methane	ug/L	5	NC	--	--	9.9 U	--
bis(2-Chloroethyl)ether	ug/L	1	NC	--	--	2.0 U	--
bis(2-Ethylhexyl)phthalate	ug/L	5	NC	--	--	2.4 J	--
Butyl benzylphthalate	ug/L	NC	50	--	--	9.9 U	--
Caprolactam	ug/L	NC	NC	--	--	1200	--
Carbazole	ug/L	NC	NC	--	--	2.0 U	--
Chrysene	ug/L	NC	0.002	--	--	2.0 U	--
Dibenz(a,h)anthracene	ug/L	NC	NC	--	--	2.0 U	--
Dibenzofuran	ug/L	NC	NC	--	--	9.9 U	--
Diethyl phthalate	ug/L	NC	50	--	--	9.9 U	--
Dimethyl phthalate	ug/L	NC	50	--	--	9.9 U	--
Di-n-butylphthalate	ug/L	50	NC	--	--	9.9 U	--
Di-n-octyl phthalate	ug/L	NC	50	--	--	9.9 U	--
Fluoranthene	ug/L	NC	50	--	--	2.0 U	--
Fluorene	ug/L	NC	50	--	--	2.0 U	--
Hexachlorobenzene	ug/L	0.04	NC	--	--	2.0 U	--
Hexachlorobutadiene	ug/L	0.5	NC	--	--	2.0 U	--
Hexachlorocyclopentadiene	ug/L	5	NC	--	--	9.9 UJ	--
Hexachloroethane	ug/L	5	NC	--	--	9.9 U	--
Indeno(1,2,3-cd)pyrene	ug/L	NC	0.002	--	--	2.0 U	--
Isophorone	ug/L	NC	50	--	--	9.9 U	--
Naphthalene	ug/L	10	10	--	--	2.0 U	--
Nitrobenzene	ug/L	0.4	NC	--	--	2.0 U	--
N-Nitrosodi-n-propylamine	ug/L	NC	NC	--	--	2.0 U	--
N-Nitrosodiphenylamine	ug/L	NC	50	--	--	2.0 U	--
Pentachlorophenol	ug/L	1	NC	--	--	9.9 U	--
Phenanthrene	ug/L	NC	50	--	--	2.0 U	--
Phenol	ug/L	1	NC	--	--	0.72 J	--
Pyrene	ug/L	NC	50	--	--	2.0 U	--

TABLE 3A

ANALYTICAL RESULTS SUMMARY  
 GROUNDWATER INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

Location ID:	MW-5/BH-5	MW-8/BH-15	MW-9/BH-1	MW-12
Sample Name:	WG-37191-082107-RN-003	WG-37191-082107-RN-006	WG-37191-082107-RN-007	WG-37191-082107-RN-004
Sample Date:	8/21/2007	8/21/2007	8/21/2007	8/21/2007

Parameters	Units	New York State Water Quality					
		Standards	Guidance Values				
<i>Metals</i>							
Aluminum	ug/L	NC	NC	--	--	8250 J	--
Antimony	ug/L	3	NC	--	--	7.5 J	--
Arsenic	ug/L	25	NC	--	--	9.4 J	--
Barium	ug/L	1000	NC	--	--	90.2 J	--
Beryllium	ug/L	NC	3	--	--	4.0 U	--
Cadmium	ug/L	5	NC	--	--	5.0 U	--
Calcium	ug/L	NC	NC	--	--	301000	--
Chromium Total	ug/L	50	NC	--	--	14.5	--
Cobalt	ug/L	NC	NC	--	--	6.5 J	--
Copper	ug/L	200	NC	--	--	24.6 J	--
Iron	ug/L	300	NC	--	--	14300	--
Lead	ug/L	25	NC	13.8	33.6	28.7	3.0 U
Magnesium	ug/L	NC	35000	--	--	58500	--
Manganese	ug/L	300	NC	--	--	472	--
Mercury	ug/L	0.7	NC	--	--	0.088 J	--
Nickel	ug/L	100	NC	--	--	18.5 J	--
Potassium	ug/L	NC	NC	--	--	10600	--
Selenium	ug/L	10	NC	--	--	5.0 U	--
Silver	ug/L	50	NC	--	--	1.3 J	--
Sodium	ug/L	20000	NC	--	--	44700	--
Thallium	ug/L	NC	0.5	--	--	10.0 U	--
Vanadium	ug/L	NC	NC	--	--	17.9 J	--
Zinc	ug/L	NC	2000	--	--	93.3	--
<i>Metals (Dissolved)</i>							
Aluminum (Dissolved)	ug/L	NC	NC	--	--	200 U	--
Antimony (Dissolved)	ug/L	3	NC	--	--	3.3 J	--
Arsenic (Dissolved)	ug/L	25	NC	--	--	10.0 U	--
Barium (Dissolved)	ug/L	1000	NC	--	--	35.8 J	--
Beryllium (Dissolved)	ug/L	NC	3	--	--	4.0 U	--
Cadmium (Dissolved)	ug/L	5	NC	--	--	5.0 U	--
Calcium (Dissolved)	ug/L	NC	NC	--	--	249000	--
Chromium Total (Dissolved)	ug/L	50	NC	--	--	5.0 U	--
Cobalt (Dissolved)	ug/L	NC	NC	--	--	50.0 U	--
Copper (Dissolved)	ug/L	200	NC	--	--	25.0 U	--
Iron (Dissolved)	ug/L	300	NC	--	--	100 U	--
Lead (Dissolved)	ug/L	25	NC	3.0 U	3.0 U	3.0 U	3.0 U

TABLE 3A

ANALYTICAL RESULTS SUMMARY  
GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	MW-5/BH-5	MW-8/BH-15	MW-9/BH-1	MW-12
Sample Name:	WG-37191-082107-RN-003	WG-37191-082107-RN-006	WG-37191-082107-RN-007	WG-37191-082107-RN-004
Sample Date:	8/21/2007	8/21/2007	8/21/2007	8/21/2007

Parameters	Units	New York State Water Quality					
		Standards	Guidance Values				
<i>Metals (Cont'd)</i>							
Magnesium (Dissolved)	ug/L	NC	35000	--	--	44700	--
Manganese (Dissolved)	ug/L	300	NC	--	--	221	--
Mercury (Dissolved)	ug/L	0.7	NC	--	--	0.067 J	--
Nickel (Dissolved)	ug/L	100	NC	--	--	4.5 J	--
Potassium (Dissolved)	ug/L	NC	NC	--	--	7610	--
Selenium (Dissolved)	ug/L	10	NC	--	--	5.0 U	--
Silver (Dissolved)	ug/L	50	NC	--	--	5.0 U	--
Sodium (Dissolved)	ug/L	20000	NC	--	--	43200	--
Thallium (Dissolved)	ug/L	NC	0.5	--	--	10.0 U	--
Vanadium (Dissolved)	ug/L	NC	NC	--	--	1.3 J	--
Zinc (Dissolved)	ug/L	NC	2000	--	--	20.0 U	--
<i>Herbicides</i>							
2,4,5-T	ug/L	35	NC	--	--	0.96 U	--
2,4,5-TP (Silvex)	ug/L	NC	NC	--	--	0.96 U	--
2,4-DB	ug/L	NC	NC	--	--	3.8 U	--
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/L	50	NC	--	--	3.8 U	--
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	ug/L	0.44	NC	--	--	380 U	--
Dalapon	ug/L	50	NC	--	--	4.8 U	--
Dicamba	ug/L	0.44	NC	--	--	1.9 U	--
Dichlorprop	ug/L	NC	NC	--	--	3.8 U	--
Dinoseb	ug/L	1	NC	--	--	0.86 U	--
Mecoprop (MCP)	ug/L	NC	NC	--	--	380 U	--
<i>Pesticides</i>							
4,4'-DDD	ug/L	0.3	NC	--	--	0.051 U	--
4,4'-DDE	ug/L	0.2	NC	--	--	0.051 U	--
4,4'-DDT	ug/L	0.2	NC	--	--	0.051 U	--
Aldrin	ug/L	NC	NC	--	--	0.051 U	--
alpha-BHC	ug/L	0.01	NC	--	--	0.051 U	--
alpha-Chlordane	ug/L	NC	NC	--	--	0.051 U	--
beta-BHC	ug/L	0.04	NC	--	--	0.051 U	--
delta-BHC	ug/L	0.04	NC	--	--	0.081 U	--
Dieldrin	ug/L	0.004	NC	--	--	0.051 U	--
Endosulfan I	ug/L	NC	NC	--	--	0.051 U	--
Endosulfan II	ug/L	NC	NC	--	--	0.051 U	--
Endosulfan sulfate	ug/L	NC	NC	--	--	0.024 J	--
Endrin	ug/L	NC	NC	--	--	0.011 J	--



TABLE 3A

ANALYTICAL RESULTS SUMMARY  
GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Parameters	New York State Water Quality			
	Units	Standards	Guidance Values	
<i>Pesticides (Cont'd.)</i>				
Endrin aldehyde	ug/L	5	NC	--
Endrin ketone	ug/L	5	NC	--
gamma-BHC (Lindane)	ug/L	0.05	NC	--
gamma-Chlordane	ug/L	NC	NC	--
Heptachlor	ug/L	0.04	NC	--
Heptachlor epoxide	ug/L	0.03	NC	--
Methoxychlor	ug/L	35	NC	--
Toxaphene	ug/L	0.06	NC	--
<i>PCBs</i>				
Aroclor-1016 (PCB-1016)	ug/L	NC	NC	--
Aroclor-1221 (PCB-1221)	ug/L	NC	NC	--
Aroclor-1232 (PCB-1232)	ug/L	NC	NC	--
Aroclor-1242 (PCB-1242)	ug/L	NC	NC	--
Aroclor-1248 (PCB-1248)	ug/L	NC	NC	--
Aroclor-1254 (PCB-1254)	ug/L	NC	NC	--
Aroclor-1260 (PCB-1260)	ug/L	NC	NC	--
<i>WetChemistry</i>				
Cyanide (total)	ug/L	200	NC	--

Location ID:	MW-5/BH-5	MW-8/BH-15	MW-9/BH-1	MW-12
Sample Name:	WG-37191-082107-RN-003	WG-37191-082107-RN-006	WG-37191-082107-RN-007	WG-37191-082107-RN-004
Sample Date:	8/21/2007	8/21/2007	8/21/2007	8/21/2007

TABLE 3A

**ANALYTICAL RESULTS SUMMARY  
GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007**

<i>Location ID:</i>	MW-12	MW-4	MW-4
<i>Sample Name:</i>	WG-37191-082107-RN-005	WG-37191-082107-RN-001	WG-37191-082107-RN-002
<i>Sample Date:</i>	8/21/2007	8/21/2007	8/21/2007
	<i>Duplicate</i>		<i>Duplicate</i>

<i>Parameters</i>	<i>Units</i>	<i>New York State Water Quality</i>				
		<i>Standards</i>	<i>Guidance Values</i>			
<i>Volatile Organic Compounds</i>						
1,1,1-Trichloroethane	ug/L	5	NC	1200 U	150 U	100 U
1,1,2,2-Tetrachloroethane	ug/L	5	NC	1200 U	150 U	100 U
1,1,2-Trichloroethane	ug/L	1	NC	1200 U	150 U	100 U
1,1-Dichloroethane	ug/L	5	NC	1200 U	150 U	100 U
1,1-Dichloroethene	ug/L	5	NC	1200 U	150 U	100 U
1,2,4-Trichlorobenzene	ug/L	5	NC	1200 U	150 U	100 U
1,2-Dibromo-3-chloropropane (DBCP)	ug/L	0.04	NC	1200 U	150 U	100 U
1,2-Dibromoethane (Ethylene Dibromide)	ug/L	0.0006	NC	1200 U	150 U	100 U
1,2-Dichlorobenzene	ug/L	3	NC	1200 U	150 U	100 U
1,2-Dichloroethane	ug/L	0.6	NC	1200 U	150 U	100 U
1,2-Dichloropropane	ug/L	1	NC	1200 U	150 U	100 U
1,3-Dichlorobenzene	ug/L	3	NC	1200 U	150 U	100 U
1,4-Dichlorobenzene	ug/L	3	NC	1200 U	150 U	100 U
2-Butanone (Methyl Ethyl Ketone)	ug/L	50	50	1200 U	150 U	100 U
2-Hexanone	ug/L	50	50	1200 U	150 U	100 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	NC	NC	1200 U	150 U	100 U
Acetone	ug/L	NC	50	5000 U	600 UJ	400 U
Benzene	ug/L	1	NC	1200 U	150 U	100 U
Bromodichloromethane	ug/L	50	50	1200 U	150 U	100 U
Bromoform	ug/L	50	50	1200 U	150 U	100 U
Bromomethane (Methyl Bromide)	ug/L	5	NC	1200 U	150 U	100 U
Carbon disulfide	ug/L	NC	60	1200 U	150 U	100 U
Carbon tetrachloride	ug/L	5	NC	1200 U	150 U	100 U
Chlorobenzene	ug/L	5	NC	1200 U	150 U	100 U
Chloroethane	ug/L	5	NC	1200 UJ	150 U	100 UJ
Chloroform (Trichloromethane)	ug/L	7	NC	1200 U	150 U	100 U
Chloromethane (Methyl Chloride)	ug/L	5	NC	1200 U	150 U	100 U
cis-1,2-Dichloroethene	ug/L	5	NC	<b>25000 J</b>	<b>2200 J</b>	<b>1100 J</b>
cis-1,3-Dichloropropene	ug/L	NC	NC	1200 U	150 U	100 U
Cyclohexane	ug/L	NC	NC	1200 U	150 U	100 U
Dibromochloromethane	ug/L	50	50	1200 U	150 U	100 U
Dichlorodifluoromethane (CFC-12)	ug/L	5	NC	1200 U	150 UJ	100 U
Ethylbenzene	ug/L	5	NC	1200 U	150 U	100 U
Isopropylbenzene	ug/L	5	NC	1200 U	150 U	100 U
Methyl acetate	ug/L	NC	NC	1200 U	150 U	100 U
Methyl cyclohexane	ug/L	NC	NC	1200 U	150 U	100 U
Methyl Tert Butyl Ether	ug/L	NC	10	1200 U	150 U	100 U
Methylene chloride	ug/L	5	NC	1200 U	150 U	100 U

TABLE 3A

ANALYTICAL RESULTS SUMMARY  
GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	MW-12	MW-4	MW-4
Sample Name:	WG-37191-082107-RN-005	WG-37191-082107-RN-001	WG-37191-082107-RN-002
Sample Date:	8/21/2007	8/21/2007	8/21/2007
	Duplicate		Duplicate

Parameters	Units	New York State Water Quality				
		Standards	Guidance Values			
<b>Volatiles (Cont'd.)</b>						
Styrene	ug/L	5	NC	1200 U	150 U	100 U
Tetrachloroethene	ug/L	5	NC	1200 U	150 U	100 U
Toluene	ug/L	5	NC	1200 U	150 U	100 U
trans-1,2-Dichloroethene	ug/L	5	NC	1200 U	87 J	34 J
trans-1,3-Dichloropropene	ug/L	NC	NC	1200 U	150 U	100 U
Trichloroethene	ug/L	5	NC	26000 J	2000 J	1000 J
Trichlorofluoromethane (CFC-11)	ug/L	5	NC	1200 U	150 U	100 U
Trifluorotrchloroethane (Freon 113)	ug/L	5	NC	1200 UJ	150 UJ	100 UJ
Vinyl chloride	ug/L	2	NC	760 J	31 J	100 U
Xylene (total)	ug/L	NC	NC	3800 U	450 U	300 U
<b>Semi-Volatile Organic Compounds</b>						
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	ug/L	5	NC	--	2.1 U	2.1 U
2,4,5-Trichlorophenol	ug/L	NC	NC	--	11 U	10 U
2,4,6-Trichlorophenol	ug/L	NC	NC	--	11 U	10 U
2,4-Dichlorophenol	ug/L	5	NC	--	2.1 U	2.1 U
2,4-Dimethylphenol	ug/L	NC	50	--	11 U	10 U
2,4-Dinitrophenol	ug/L	NC	10	--	53 UJ	52 UJ
2,4-Dinitrotoluene	ug/L	5	NC	--	11 U	10 U
2,6-Dinitrotoluene	ug/L	5	NC	--	11 U	10 U
2-Chloronaphthalene	ug/L	NC	10	--	2.1 U	2.1 U
2-Chlorophenol	ug/L	NC	NC	--	11 U	10 U
2-Methylnaphthalene	ug/L	NC	NC	--	2.1 U	2.1 U
2-Methylphenol	ug/L	NC	NC	--	11 U	10 U
2-Nitroaniline	ug/L	5	NC	--	53 U	52 U
2-Nitrophenol	ug/L	NC	NC	--	11 U	10 U
3,3'-Dichlorobenzidine	ug/L	5	NC	--	11 U	10 U
3-Nitroaniline	ug/L	5	NC	--	53 U	52 U
4,6-Dinitro-2-methylphenol	ug/L	NC	NC	--	53 U	52 U
4-Bromophenyl phenyl ether	ug/L	NC	NC	--	11 U	10 U
4-Chloro-3-methylphenol	ug/L	NC	NC	--	11 U	10 U
4-Chloroaniline	ug/L	5	NC	--	11 U	10 U
4-Chlorophenyl phenyl ether	ug/L	NC	NC	--	11 U	10 U
4-Methylphenol	ug/L	NC	NC	--	11 U	10 U
4-Nitroaniline	ug/L	5	NC	--	53 U	52 U
4-Nitrophenol	ug/L	NC	NC	--	53 U	52 U
Acenaphthene	ug/L	NC	20	--	2.1 U	2.1 U
Acenaphthylene	ug/L	NC	NC	--	2.1 U	2.1 U

TABLE 3A

ANALYTICAL RESULTS SUMMARY  
GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Parameters	Location ID: MW-12				MW-4		MW-4	
	Sample Name: WG-37191-082107-RN-005				WG-37191-082107-RN-001		WG-37191-082107-RN-002	
	Sample Date: 8/21/2007				8/21/2007		8/21/2007	
New York State Water								
Quality								
	Units	Standards	Guidance Values					
<i>Semi-Volatiles (Cont'd.)</i>								
Acetophenone	ug/L	NC	NC	--	2.1 U		2.1 U	
Anthracene	ug/L	NC	50	--	2.1 U		2.1 U	
Atrazine	ug/L	7.5	NC	--	2.1 U		2.1 U	
Benzaldehyde	ug/L	NC	NC	--	2.1 U		2.1 U	
Benzo(a)anthracene	ug/L	NC	0.002	--	2.1 U		0.84 J	
Benzo(a)pyrene	ug/L	NC	NC	--	2.1 U		2.1 U	
Benzo(b)fluoranthene	ug/L	NC	0.002	--	2.1 U		0.81 J	
Benzo(g,h,i)perylene	ug/L	NC	NC	--	2.1 U		2.1 U	
Benzo(k)fluoranthene	ug/L	NC	0.002	--	2.1 U		2.1 U	
Biphenyl	ug/L	5	NC	--	2.1 U		2.1 U	
bis(2-Chloroethoxy)methane	ug/L	5	NC	--	11 U		10 U	
bis(2-Chloroethyl)ether	ug/L	1	NC	--	2.1 U		2.1 U	
bis(2-Ethylhexyl)phthalate	ug/L	5	NC	--	2.1 J		1.4 J	
Butyl benzylphthalate	ug/L	NC	50	--	11 U		10 U	
Caprolactam	ug/L	NC	NC	--	260		370	
Carbazole	ug/L	NC	NC	--	2.1 U		2.1 U	
Chrysene	ug/L	NC	0.002	--	2.1 U		2.1 U	
Dibenz(a,h)anthracene	ug/L	NC	NC	--	2.1 U		2.1 U	
Dibenzofuran	ug/L	NC	NC	--	11 U		10 U	
Diethyl phthalate	ug/L	NC	50	--	11 U		3.0 J	
Dimethyl phthalate	ug/L	NC	50	--	11 U		10 U	
Di-n-butylphthalate	ug/L	50	NC	--	11 U		10 U	
Di-n-octyl phthalate	ug/L	NC	50	--	11 U		10 U	
Fluoranthene	ug/L	NC	50	--	2.1 U		1.5 J	
Fluorene	ug/L	NC	50	--	2.1 U		2.1 U	
Hexachlorobenzene	ug/L	0.04	NC	--	2.1 U		2.1 U	
Hexachlorobutadiene	ug/L	0.5	NC	--	2.1 U		2.1 U	
Hexachlorocyclopentadiene	ug/L	5	NC	--	11 UJ		10 UJ	
Hexachloroethane	ug/L	5	NC	--	11 U		10 U	
Indeno(1,2,3-cd)pyrene	ug/L	NC	0.002	--	2.1 U		2.1 U	
Isophorone	ug/L	NC	50	--	11 U		10 U	
Naphthalene	ug/L	10	10	--	2.1 U		2.1 U	
Nitrobenzene	ug/L	0.4	NC	--	2.1 U		2.1 U	
N-Nitrosodi-n-propylamine	ug/L	NC	NC	--	2.1 U		2.1 U	
N-Nitrosodiphenylamine	ug/L	NC	50	--	2.1 U		2.1 U	
Pentachlorophenol	ug/L	1	NC	--	11 U		10 U	
Phenanthrene	ug/L	NC	50	--	0.76 J		1.1 J	
Phenol	ug/L	1	NC	--	2.1 U		0.59 J	
Pyrene	ug/L	NC	50	--	0.72 J		1.2 J	

TABLE 3A

ANALYTICAL RESULTS SUMMARY  
GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID: MW-12 MW-4 MW-4  
Sample Name: WG-37191-082107-RN-005 WG-37191-082107-RN-001 WG-37191-082107-RN-002  
Sample Date: 8/21/2007 8/21/2007 8/21/2007  
Duplicate Duplicate Duplicate

Parameters	Units	New York State Water Quality				
		Standards	Guidance Values			
<b>Metals</b>						
Aluminum	ug/L	NC	NC	--	5110 J	4190 J
Antimony	ug/L	3	NC	--	<b>3.9 J</b>	<b>5.0 J</b>
Arsenic	ug/L	25	NC	--	4.7 J	4.1 J
Barium	ug/L	1000	NC	--	110 J	86.6 J
Beryllium	ug/L	NC	3	--	4.0 U	4.0 U
Cadmium	ug/L	5	NC	--	5.0 U	5.0 U
Calcium	ug/L	NC	NC	--	172000	165000
Chromium Total	ug/L	50	NC	--	13.6	10.2
Cobalt	ug/L	NC	NC	--	4.4 J	3.3 J
Copper	ug/L	200	NC	--	13.8 J	10.2 J
Iron	ug/L	300	NC	--	<b>6350</b>	<b>4850</b>
Lead	ug/L	25	NC	3.0 U	<b>56.8 J</b>	<b>30.0 J</b>
Magnesium	ug/L	NC	35000	--	<b>46300</b>	<b>44000</b>
Manganese	ug/L	300	NC	--	<b>915</b>	<b>860</b>
Mercury	ug/L	0.7	NC	--	0.097 J	0.20 U
Nickel	ug/L	100	NC	--	10.7 J	8.1 J
Potassium	ug/L	NC	NC	--	2470 J	2260 J
Selenium	ug/L	10	NC	--	2.6 J	5.0 U
Silver	ug/L	50	NC	--	2.1 J	1.2 J
Sodium	ug/L	20000	NC	--	<b>168000</b>	<b>173000</b>
Thallium	ug/L	NC	0.5	--	<b>3.2 J</b>	<b>5.0 J</b>
Vanadium	ug/L	NC	NC	--	18.8 J	21.6 J
Zinc	ug/L	NC	2000	--	67.4	40.9 U
<b>Metals (Dissolved)</b>						
Aluminum (Dissolved)	ug/L	NC	NC	--	200 U	200 U
Antimony (Dissolved)	ug/L	3	NC	--	10.0 U	10.0 U
Arsenic (Dissolved)	ug/L	25	NC	--	10.0 U	10.0 U
Barium (Dissolved)	ug/L	1000	NC	--	40.4 J	43.1 J
Beryllium (Dissolved)	ug/L	NC	3	--	4.0 U	4.0 U
Cadmium (Dissolved)	ug/L	5	NC	--	5.0 U	5.0 U
Calcium (Dissolved)	ug/L	NC	NC	--	135000	144000
Chromium Total (Dissolved)	ug/L	50	NC	--	5.0 U	5.0 U
Cobalt (Dissolved)	ug/L	NC	NC	--	50.0 U	50.0 U
Copper (Dissolved)	ug/L	200	NC	--	25.0 U	25.0 U
Iron (Dissolved)	ug/L	300	NC	--	100 U	100 U
Lead (Dissolved)	ug/L	25	NC	3.0 U	3.0 U	3.0 U

TABLE 3A

ANALYTICAL RESULTS SUMMARY  
GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	MW-12	MW-4	MW-4
Sample Name:	WG-37191-082107-RN-005	WG-37191-082107-RN-001	WG-37191-082107-RN-002
Sample Date:	8/21/2007	8/21/2007	8/21/2007
	Duplicate		Duplicate

Parameters	Units	New York State Water Quality				
		Standards	Guidance Values			
<i>Metals (Cont'd.)</i>						
Magnesium (Dissolved)	ug/L	NC	35000	--	36000	38300
Manganese (Dissolved)	ug/L	300	NC	--	714	761
Mercury (Dissolved)	ug/L	0.7	NC	--	0.062 J	0.20 U
Nickel (Dissolved)	ug/L	100	NC	--	1.4 J	1.2 J
Potassium (Dissolved)	ug/L	NC	NC	--	1290 J	1390 J
Selenium (Dissolved)	ug/L	10	NC	--	5.0 U	5.0 U
Silver (Dissolved)	ug/L	50	NC	--	5.0 U	5.0 U
Sodium (Dissolved)	ug/L	20000	NC	--	193000	192000
Thallium (Dissolved)	ug/L	NC	0.5	--	10.0 U	10.0 U
Vanadium (Dissolved)	ug/L	NC	NC	--	11.8 J	10.7 J
Zinc (Dissolved)	ug/L	NC	2000	--	20.0 U	20.0 U
<i>Herbicides</i>						
2,4,5-T	ug/L	35	NC	--	0.95 U	1.1 U
2,4,5-TP (Silvex)	ug/L	NC	NC	--	0.95 U	1.1 U
2,4-DB	ug/L	NC	NC	--	3.8 U	4.4 U
2,4-Dichlorophenoxyacetic acid (2,4-D)	ug/L	50	NC	--	3.8 U	4.4 U
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	ug/L	0.44	NC	--	380 U	440 U
Dalapon	ug/L	50	NC	--	4.8 U	5.6 U
Dicamba	ug/L	0.44	NC	--	1.9 U	2.2 U
Dichlorprop	ug/L	NC	NC	--	3.8 U	4.4 U
Dinoseb	ug/L	1	NC	--	0.86 U	1.0 U
Mecoprop (MCPP)	ug/L	NC	NC	--	380 U	440 U
<i>Pesticides</i>						
4,4'-DDD	ug/L	0.3	NC	--	0.051 U	0.051 U
4,4'-DDE	ug/L	0.2	NC	--	0.051 U	0.051 U
4,4'-DDT	ug/L	0.2	NC	--	0.051 U	0.051 U
Aldrin	ug/L	NC	NC	--	0.051 U	0.051 U
alpha-BHC	ug/L	0.01	NC	--	0.021 J	0.051 U
alpha-Chlordane	ug/L	NC	NC	--	0.051 U	0.051 U
beta-BHC	ug/L	0.04	NC	--	0.051 U	0.051 U
delta-BHC	ug/L	0.04	NC	--	0.051 U	0.051 U
Dieldrin	ug/L	0.004	NC	--	0.051 U	0.051 U
Endosulfan I	ug/L	NC	NC	--	0.051 U	0.051 U
Endosulfan II	ug/L	NC	NC	--	0.051 U	0.051 U
Endosulfan sulfate	ug/L	NC	NC	--	0.051 U	0.051 U
Endrin	ug/L	NC	NC	--	0.051 U	0.051 U

TABLE 3A

ANALYTICAL RESULTS SUMMARY  
GROUNDWATER INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Parameters	Units	New York State Water Quality				
		Standards	Guidance Values			
<i>Pesticides (Cont'd.)</i>						
Endrin aldehyde	ug/L	5	NC	--	0.051 U	0.051 U
Endrin ketone	ug/L	5	NC	--	0.051 U	0.051 U
gamma-BHC (Lindane)	ug/L	0.05	NC	--	0.051 U	0.051 U
gamma-Chlordane	ug/L	NC	NC	--	0.051 U	0.051 U
Heptachlor	ug/L	0.04	NC	--	0.051 U	0.051 U
Heptachlor epoxide	ug/L	0.03	NC	--	0.051 U	0.051 U
Methoxychlor	ug/L	35	NC	--	0.10 U	0.10 U
Toxaphene	ug/L	0.06	NC	--	2.0 U	2.0 U
<i>PCBs</i>						
Aroclor-1016 (PCB-1016)	ug/L	NC	NC	--	0.41 U	0.41 U
Aroclor-1221 (PCB-1221)	ug/L	NC	NC	--	0.41 U	0.41 U
Aroclor-1232 (PCB-1232)	ug/L	NC	NC	--	0.41 U	0.41 U
Aroclor-1242 (PCB-1242)	ug/L	NC	NC	--	0.41 U	0.41 U
Aroclor-1248 (PCB-1248)	ug/L	NC	NC	--	0.41 U	0.41 U
Aroclor-1254 (PCB-1254)	ug/L	NC	NC	--	0.41 U	0.41 U
Aroclor-1260 (PCB-1260)	ug/L	NC	NC	--	0.41 U	0.41 U
<i>WetChemistry</i>						
Cyanide (total)	ug/L	200	NC	--	10.0 U	6.4 J

## Notes:

- Not analyzed.
- L0** Exceeds Criteria.
- B Compound detected in an associated blank.
- BHC Benzene Hexachloride.
- D Reported from a diluted analysis.
- E Exceeds the linear range of the instrument.
- GC Gas Chromatograph
- J Estimated.
- N Tentatively identified.
- NC No Criteria.
- P Greater than 25% difference between concentrations detected on the two GC columns.
- PCBs Polychlorinated Biphenyls.
- U Not detected.
- UJ Not detected, estimated reporting limit.

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

	Location ID:	SB-1-07	SB-2-07	SB-2-07	SB-3-07	SB-4-07
	Sample Name:	SO-37191-072507-RN-SB-1	SO-37191-072707-RN-SB-2	SO-37191-072707-RN-SB-20	SO-37191-072707-RN-SB-3	SO-37191-072707-RN-SB-4
	Sample Date:	7/25/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007
	Depth:	2 - 4 ft	6.5 - 8 ft	6.5 - 8 ft	10 - 13 ft	2 - 4 ft
				Duplicate		
6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial						
Parameters	Units <sup>1</sup>					
<i>Volatile Organic Compounds</i>						
1,1,1-Trichloroethane	mg/kg	1000	0.0069 U	0.0062 U	0.0067 U	0.006 U
1,1,2,2-Tetrachloroethane	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
1,1,2-Trichloroethane	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
1,1-Dichloroethane	mg/kg	480	0.0069 U	0.0062 U	0.0067 U	0.006 U
1,1-Dichloroethene	mg/kg	1000	0.0069 U	0.0062 U	0.0067 U	0.006 U
1,2,4-Trichlorobenzene	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
1,2-Dichlorobenzene	mg/kg	1000	0.0069 U	0.0062 U	0.0067 U	0.006 U
1,2-Dichloroethane	mg/kg	60	0.0069 U	0.0062 U	0.0067 U	0.006 U
1,2-Dichloropropane	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
1,3-Dichlorobenzene	mg/kg	560	0.0069 U	0.0062 U	0.0067 U	0.006 U
1,4-Dichlorobenzene	mg/kg	250	0.0069 U	0.0062 U	0.0067 U	0.006 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	1000	0.0069 U	0.0062 U	0.0067 U	0.006 U
2-Hexanone	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
Acetone	mg/kg	1000	0.028 U	0.025 UJ	0.023 J	0.024 UJ
Benzene	mg/kg	89	0.0069 U	0.0062 U	0.0067 U	0.006 U
Bromodichloromethane	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
Bromoform	mg/kg	NC	0.0069 UJ	0.0062 UJ	0.0067 UJ	0.006 UJ
Bromomethane (Methyl Bromide)	mg/kg	NC	0.0069 UJ	0.0062 UJ	0.0067 UJ	0.006 UJ
Carbon disulfide	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
Carbon tetrachloride	mg/kg	44	0.0069 U	0.0062 U	0.0067 U	0.006 U
Chlorobenzene	mg/kg	1000	0.0069 U	0.0062 U	0.0067 U	0.006 U
Chloroethane	mg/kg	NC	0.0069 UJ	0.0062 UJ	0.0067 UJ	0.006 UJ
Chloroform (Trichloromethane)	mg/kg	700	0.0069 U	0.0062 U	0.0067 U	0.006 U
Chloromethane (Methyl Chloride)	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
cis-1,2-Dichloroethene	mg/kg	1000	0.0069 U	0.0014 J	0.0067 U	0.006 U
cis-1,3-Dichloropropene	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
Cyclohexane	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
Dibromochloromethane	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
Dichlorodifluoromethane (CFC-12)	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
Ethylbenzene	mg/kg	780	0.0069 U	0.0062 U	0.0067 U	0.006 U
Isopropylbenzene	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U
Methyl acetate	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U



TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	SB-1-07	SB-2-07	SB-2-07	SB-3-07	SB-4-07
Sample Name:	SO-37191-072507-RN-SB-1	SO-37191-072707-RN-SB-2	SO-37191-072707-RN-SB-20	SO-37191-072707-RN-SB-3	SO-37191-072707-RN-SB-4
Sample Date:	7/25/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007
Depth:	2 - 4 ft	6.5 - 8 ft	6.5 - 8 ft	10 - 13 ft	2 - 4 ft

Duplicate

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units <sup>1</sup>						
<b>Volatiles (Cont'd.)</b>							
Methyl cyclohexane	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U	0.0062 U
Methyl Tert Butyl Ether	mg/kg	1000	0.0069 U	0.0062 U	0.0067 U	0.006 U	0.0062 U
Methylene chloride	mg/kg	1000	0.0069 U	0.0062 U	0.0067 U	0.006 U	0.0062 U
Styrene	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U	0.0062 U
Tetrachloroethene	mg/kg	300	0.0069 U	0.0062 U	0.0067 U	0.0017 J	0.0062 U
Toluene	mg/kg	1000	0.0069 U	0.0062 U	0.0067 U	0.006 U	0.0062 U
trans-1,2-Dichloroethene	mg/kg	1000	0.0069 U	0.0062 U	0.0067 U	0.006 U	0.0062 U
trans-1,3-Dichloropropene	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U	0.0062 U
Trichloroethene	mg/kg	400	0.0069 U	0.0019 J	0.0067 U	0.006 U	0.0062 U
Trichlorofluoromethane (CFC-11)	mg/kg	NC	0.0069 UJ	0.0062 U	0.0067 UJ	0.006 U	0.0062 UJ
Trifluorotrichloroethane (Freon 113)	mg/kg	NC	0.0069 U	0.0062 U	0.0067 U	0.006 U	0.0062 U
Vinyl chloride	mg/kg	27	0.0069 U	0.0062 U	0.0067 U	0.006 U	0.0062 U
Xylene (total)	mg/kg	1000	0.021 U	0.019 U	0.02 U	0.018 U	0.019 U
<b>Semi-Volatile Organic Compounds</b>							
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NC	0.093 U	0.17 U	0.18 U	0.08 U	0.083 U
2,4,5-Trichlorophenol	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U
2,4,6-Trichlorophenol	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U
2,4-Dichlorophenol	mg/kg	NC	0.093 U	0.17 U	0.18 U	0.08 U	0.083 U
2,4-Dimethylphenol	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U
2,4-Dinitrophenol	mg/kg	NC	2.3 UJ	4.1 UJ	4.4 UJ	2 UJ	2.1 UJ
2,4-Dinitrotoluene	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U
2,6-Dinitrotoluene	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U
2-Chloronaphthalene	mg/kg	NC	0.093 U	0.17 U	0.18 U	0.08 U	0.083 U
2-Chlorophenol	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U
2-Methylnaphthalene	mg/kg	NC	0.076 J	0.12 J	0.17 J	0.08 U	0.061 J
2-Methylphenol	mg/kg	1000	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U
2-Nitroaniline	mg/kg	NC	2.3 U	4.1 U	4.4 U	2 U	2.1 U
2-Nitrophenol	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U
3,3'-Dichlorobenzidine	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U
3-Nitroaniline	mg/kg	NC	2.3 U	4.1 U	4.4 U	2 U	2.1 U
4,6-Dinitro-2-methylphenol	mg/kg	NC	2.2 U	3.9 U	4.2 U	1.9 U	1.9 U
4-Bromophenyl phenyl ether	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U
4-Chloro-3-methylphenol	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	SB-1-07	SB-2-07	SB-2-07	SB-3-07	SB-4-07
Sample Name:	SO-37191-072507-RN-SB-1	SO-37191-072707-RN-SB-2	SO-37191-072707-RN-SB-20	SO-37191-072707-RN-SB-3	SO-37191-072707-RN-SB-4
Sample Date:	7/25/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007
Depth:	2 - 4 ft	6.5 - 8 ft	6.5 - 8 ft	10 - 13 ft	2 - 4 ft

Duplicate

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units <sup>1</sup>					
<i>Semi-Volatiles (Cont'd.)</i>						
4-Chloroaniline	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U
4-Chlorophenyl phenyl ether	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U
4-Methylphenol	mg/kg	1000	0.46 U	0.06 J	0.88 U	0.39 U
4-Nitroaniline	mg/kg	NC	2.3 U	4.1 U	4.4 U	2 U
4-Nitrophenol	mg/kg	NC	2.3 U	4.1 U	4.4 U	2 U
Acenaphthene	mg/kg	1000	0.093 U	0.25	0.47	0.08 U
Acenaphthylene	mg/kg	1000	0.093 U	0.062 J	0.12 J	0.08 U
Acetophenone	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U
Anthracene	mg/kg	1000	0.093 U	0.53	1.2	0.08 U
Atrazine	mg/kg	NC	0.46 UJ	0.82 UJ	0.88 UJ	0.39 UJ
Benzaldehyde	mg/kg	NC	0.46 UJ	0.82 UJ	0.88 UJ	0.39 UJ
Benzo(a)anthracene	mg/kg	11	0.061 J	1.5	3	0.08 U
Benzo(a)pyrene	mg/kg	1.1	0.047 J	1.4	2.7	0.08 U
Benzo(b)fluoranthene	mg/kg	11	0.044 J	1.6	3.3	0.08 U
Benzo(g,h,i)perylene	mg/kg	1000	0.081 J	1	2	0.08 U
Benzo(k)fluoranthene	mg/kg	110	0.022 J	0.73	1.3	0.08 U
Biphenyl	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U
bis(2-Chloroethoxy)methane	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U
bis(2-Chloroethyl)ether	mg/kg	NC	0.093 U	0.17 U	0.18 U	0.08 U
bis(2-Ethylhexyl)phthalate	mg/kg	NC	0.46 U	0.26 J	0.88 U	0.081 J
Butyl benzylphthalate	mg/kg	NC	0.46 U	0.82 U	0.12 J	0.39 U
Caprolactam	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U
Carbazole	mg/kg	NC	0.093 U	0.23	0.67	0.08 U
Chrysene	mg/kg	110	0.1	1.4	2.7	0.08 U
Dibenz(a,h)anthracene	mg/kg	1.1	0.093 U	0.23	0.46	0.08 U
Dibenzofuran	mg/kg	1000	0.036 J	0.23 J	0.36 J	0.39 U
Diethyl phthalate	mg/kg	NC	0.54	0.82 U	0.88 U	0.39 U
Dimethyl phthalate	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U
Di-n-butylphthalate	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U
Di-n-octyl phthalate	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U
Fluoranthene	mg/kg	1000	0.11	2.7	6.2	0.08 U
Fluorene	mg/kg	1000	0.093 U	0.24	0.53	0.08 U
Hexachlorobenzene	mg/kg	12	0.093 U	0.17 U	0.18 U	0.08 U
Hexachlorobutadiene	mg/kg	NC	0.093 U	0.17 U	0.18 U	0.08 U
Hexachlorocyclopentadiene	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	SB-1-07	SB-2-07	SB-2-07	SB-3-07	SB-4-07
Sample Name:	SO-37191-072507-RN-SB-1	SO-37191-072707-RN-SB-2	SO-37191-072707-RN-SB-20	SO-37191-072707-RN-SB-3	SO-37191-072707-RN-SB-4
Sample Date:	7/25/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007
Depth:	2 - 4 ft	6.5 - 8 ft	6.5 - 8 ft	10 - 13 ft	2 - 4 ft

Duplicate

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units <sup>1</sup>						
<b>Semi-Volatiles (Cont'd.)</b>							
Hexachloroethane	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U
Indeno(1,2,3-cd)pyrene	mg/kg	11	0.055 J	0.94	1.8	0.08 U	0.45
Isophorone	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U
Naphthalene	mg/kg	1000	0.041 J	0.16 J	0.29	0.08 U	0.086
Nitrobenzene	mg/kg	NC	0.093 U	0.17 U	0.18 U	0.08 U	0.083 U
N-Nitrosodi-n-propylamine	mg/kg	NC	0.093 U	0.17 U	0.18 U	0.08 U	0.083 U
N-Nitrosodiphenylamine	mg/kg	NC	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U
Pentachlorophenol	mg/kg	55	0.46 U	0.82 U	0.88 U	0.39 U	0.41 U
Phenanthrene	mg/kg	1000	0.15	2.1	5	0.08 U	0.79
Phenol	mg/kg	1000	0.093 U	0.17 U	0.18 U	0.08 U	0.083 U
Pyrene	mg/kg	1000	0.12	2.9	5.4	0.08 U	1.1
<b>Metals</b>							
Aluminum	mg/kg	NC	9270	--	--	6270	--
Antimony	mg/kg	NC	1.4 U	--	--	1.2 U	--
Arsenic	mg/kg	16	11.4	--	--	2.0	--
Barium	mg/kg	10000	103	--	--	59.1	--
Beryllium	mg/kg	2700	2.0	--	--	0.57 U	--
Cadmium	mg/kg	60	0.66 J	--	--	0.20 J	--
Calcium	mg/kg	NC	103000	--	--	66900	--
Chromium Total <sup>2</sup>	mg/kg	800	13.0	--	--	10.1	--
Cobalt	mg/kg	NC	6.1 J	--	--	5.2 J	--
Copper	mg/kg	10000	60.8	--	--	13.2	--
Iron	mg/kg	NC	32300	--	--	11400	--
Lead	mg/kg	3900	78.3	229	567	6.3	285
Magnesium	mg/kg	NC	13700	--	--	21100	--
Manganese	mg/kg	10000	712	--	--	330	--
Mercury	mg/kg	5.7	0.45	--	--	0.049	--
Nickel	mg/kg	10000	16.0	--	--	10.6	--
Potassium	mg/kg	NC	1170	--	--	1580	--
Selenium	mg/kg	6800	0.69 U	--	--	1.2 U	--
Silver	mg/kg	6800	0.69 U	--	--	0.60 U	--
Sodium	mg/kg	NC	572 J	--	--	220 J	--
Thallium	mg/kg	NC	1.4 U	--	--	1.2 U	--

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	SB-1-07	SB-2-07	SB-2-07	SB-3-07	SB-4-07
Sample Name:	SO-37191-072507-RN-SB-1	SO-37191-072707-RN-SB-2	SO-37191-072707-RN-SB-20	SO-37191-072707-RN-SB-3	SO-37191-072707-RN-SB-4
Sample Date:	7/25/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007
Depth:	2 - 4 ft	6.5 - 8 ft	6.5 - 8 ft	10 - 13 ft	2 - 4 ft

Duplicate

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units <sup>1</sup>						
<b>Metals (Cont'd.)</b>							
Vanadium	mg/kg	NC	11.6	--	--	16.8	--
Zinc	mg/kg	10000	107	--	--	40.2	--
<b>Herbicides</b>							
2,4,5-T	mg/kg	NC	0.028 U	--	--	0.024 U	--
2,4,5-TP (Silvex)	mg/kg	1000	0.028 U	--	--	0.024 U	--
2,4-DB	mg/kg	NC	0.11 U	--	--	0.095 U	--
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/kg	NC	0.11 U	--	--	0.095 U	--
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg	NC	11 U	--	--	9.5 U	--
Dalapon	mg/kg	NC	0.12 U	--	--	0.11 U	--
Dicamba	mg/kg	NC	0.055 U	--	--	0.048 U	--
Dichlorprop	mg/kg	NC	0.11 U	--	--	0.095 U	--
Dinoseb	mg/kg	NC	0.017 U	--	--	0.014 U	--
Mecoprop (MCP)	mg/kg	NC	11 U	--	--	9.5 U	--
<b>Pesticides</b>							
4,4'-DDD	mg/kg	180	0.00085 J	--	--	0.00055 J	--
4,4'-DDE	mg/kg	120	0.002 J	--	--	0.00052 J	--
4,4'-DDT	mg/kg	94	0.0017 J	--	--	0.002 U	--
Aldrin	mg/kg	1.4	0.0021 J	--	--	0.002 U	--
alpha-BHC	mg/kg	6.8	0.0023 U	--	--	0.002 U	--
alpha-Chlordane	mg/kg	47	0.0023 U	--	--	0.002 U	--
beta-BHC	mg/kg	14	0.0023 U	--	--	0.002 U	--
delta-BHC	mg/kg	1000	0.00054 J	--	--	0.00033 J	--
Dieldrin	mg/kg	2.8	0.0023 U	--	--	0.002 U	--
Endosulfan I	mg/kg	920	0.0023 U	--	--	0.002 U	--
Endosulfan II	mg/kg	920	0.0023 U	--	--	0.002 U	--
Endosulfan sulfate	mg/kg	920	0.00077 J	--	--	0.002 U	--
Endrin	mg/kg	410	0.0023 U	--	--	0.002 U	--
Endrin aldehyde	mg/kg	NC	0.0023 U	--	--	0.002 U	--
Endrin ketone	mg/kg	NC	0.0023 U	--	--	0.002 U	--
gamma-BHC (Lindane)	mg/kg	23	0.0075	--	--	0.00098 J	--
gamma-Chlordane	mg/kg	NC	0.0023 U	--	--	0.002 U	--
Heptachlor	mg/kg	29	0.0023 U	--	--	0.002 U	--
Heptachlor epoxide	mg/kg	NC	0.0023 U	--	--	0.002 U	--

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
 SOIL INVESTIGATION  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

Location ID:	SB-1-07	SB-2-07	SB-2-07	SB-3-07	SB-4-07
Sample Name:	SO-37191-072507-RN-SB-1	SO-37191-072707-RN-SB-2	SO-37191-072707-RN-SB-20	SO-37191-072707-RN-SB-3	SO-37191-072707-RN-SB-4
Sample Date:	7/25/2007	7/27/2007	7/27/2007	7/27/2007	7/27/2007
Depth:	2 - 4 ft	6.5 - 8 ft	6.5 - 8 ft	10 - 13 ft	2 - 4 ft

Duplicate

6 NYCRR Part 375-  
 6.8(b): Restricted Use  
 Soil Cleanup  
 Objectives  
 Protection of Public  
 Health -  
 Industrial

Parameters	Units <sup>1</sup>						
<b>Pesticides (Cont'd.)</b>							
Methoxychlor	mg/kg	NC	0.0035 J	--	--	0.0039 U	--
Toxaphene	mg/kg	NC	0.093 U	--	--	0.079 U	--
<b>PCBs</b>							
Aroclor-1016 (PCB-1016)	mg/kg	25	0.023 U	--	--	0.02 U	--
Aroclor-1221 (PCB-1221)	mg/kg	25	0.023 U	--	--	0.02 U	--
Aroclor-1232 (PCB-1232)	mg/kg	25	0.023 U	--	--	0.02 U	--
Aroclor-1242 (PCB-1242)	mg/kg	25	0.023 U	--	--	0.02 U	--
Aroclor-1248 (PCB-1248)	mg/kg	25	0.023 U	--	--	0.02 U	--
Aroclor-1254 (PCB-1254)	mg/kg	25	0.03	--	--	0.02 U	--
Aroclor-1260 (PCB-1260)	mg/kg	25	0.018 J	--	--	0.02 U	--
<b>Wet Chemistry</b>							
Cyanide (total)	mg/kg	10000	0.29 J	--	--	0.60 U	--
Total Solids	%	NC	72.4	80.7	75.2	83.8	81

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	SB-5-07	SB-6-07	SB-6-07	SB-7-07	SB-8-07
Sample Name:	SO-37191-072507-RN-SB-05	SO-37191-073007-CB-SB6	SO-37191-073007-CB-SB19	SO-37191-072507-RN-SB-7	SO-37191-072507-RN-SB-8
Sample Date:	7/25/2007	7/30/2007	7/30/2007	7/25/2007	7/25/2007
Depth:	4 - 8 ft	6 - 10.4 ft	6 - 10.4 ft	3 - 6 ft	3.5 - 8 ft

Duplicate

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units <sup>1</sup>					
<b>Volatile Organic Compounds</b>						
1,1,1-Trichloroethane	mg/kg	1000	0.006 U	0.28 U	0.28 U	0.4 U
1,1,2,2-Tetrachloroethane	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
1,1,2-Trichloroethane	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
1,1-Dichloroethane	mg/kg	480	0.006 U	0.28 U	0.28 U	0.4 U
1,1-Dichloroethene	mg/kg	1000	0.006 U	0.28 U	0.28 U	0.4 U
1,2,4-Trichlorobenzene	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
1,2-Dichlorobenzene	mg/kg	1000	0.006 U	0.28 U	0.28 U	0.4 U
1,2-Dichloroethane	mg/kg	60	0.006 U	0.28 U	0.28 U	0.4 U
1,2-Dichloropropane	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
1,3-Dichlorobenzene	mg/kg	560	0.006 U	0.28 U	0.28 U	0.4 U
1,4-Dichlorobenzene	mg/kg	250	0.006 U	0.28 U	0.28 U	0.4 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	1000	0.006 U	0.28 U	0.12 J	0.4 U
2-Hexanone	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
Acetone	mg/kg	1000	0.024 U	1.1 U	1.1 U	1.6 UJ
Benzene	mg/kg	89	0.006 U	0.28 U	0.28 U	0.4 U
Bromodichloromethane	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
Bromoform	mg/kg	NC	0.006 UJ	0.28 U	0.28 U	0.4 U
Bromomethane (Methyl Bromide)	mg/kg	NC	0.006 UJ	0.28 U	0.28 U	0.4 U
Carbon disulfide	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
Carbon tetrachloride	mg/kg	44	0.006 U	0.28 U	0.28 U	0.4 U
Chlorobenzene	mg/kg	1000	0.006 U	0.28 U	0.28 U	0.4 U
Chloroethane	mg/kg	NC	0.006 UJ	0.28 U	0.28 U	0.4 U
Chloroform (Trichloromethane)	mg/kg	700	0.006 U	0.28 U	0.28 U	0.4 U
Chloromethane (Methyl Chloride)	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
cis-1,2-Dichloroethene	mg/kg	1000	0.012	0.066 J	0.091 J	0.3 J
cis-1,3-Dichloropropene	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
Cyclohexane	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
Dibromochloromethane	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
Dichlorodifluoromethane (CFC-12)	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 UJ
Ethylbenzene	mg/kg	780	0.006 U	0.28 U	0.2 J	0.4 U
Isopropylbenzene	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
Methyl acetate	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

	Location ID:	SB-5-07	SB-6-07	SB-6-07	SB-7-07	SB-6-07
	Sample Name:	SO-37191-072507-RN-SB-05	SO-37191-073007-CB-SB6	SO-37191-073007-CB-SB19	SO-37191-072507-RN-SB-7	SO-37191-072507-RN-SB-8
	Sample Date:	7/25/2007	7/30/2007	7/30/2007	7/25/2007	7/25/2007
	Depth:	4 - 8 ft	6 - 10.4 ft	6 - 10.4 ft	3 - 6 ft	3.5 - 8 ft
				Duplicate		
	6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial					
Parameters	Units <sup>1</sup>					
<b>Volatiles (Cont'd.)</b>						
Methyl cyclohexane	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
Methyl Tert Butyl Ether	mg/kg	1000	0.006 U	0.28 U	0.28 U	0.4 U
Methylene chloride	mg/kg	1000	0.006 U	0.28 U	0.38 U	0.4 U
Styrene	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
Tetrachloroethene	mg/kg	300	0.006 U	0.086 J	0.18 J	0.4 U
Toluene	mg/kg	1000	0.006 U	0.079 J	0.4	0.4 U
trans-1,2-Dichloroethene	mg/kg	1000	0.006 U	0.28 U	0.28 U	0.4 U
trans-1,3-Dichloropropene	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
Trichloroethene	mg/kg	400	0.083	0.5	0.51	6.8
Trichlorofluoromethane (CFC-11)	mg/kg	NC	0.006 UJ	0.28 U	0.28 U	0.4 U
Trifluorotrichloroethane (Freon 113)	mg/kg	NC	0.006 U	0.28 U	0.28 U	0.4 U
Vinyl chloride	mg/kg	27	0.006 U	0.28 U	0.28 U	0.4 U
Xylene (total)	mg/kg	1000	0.018 U	0.84 U	0.79 J	1.2 U
<b>Semi-Volatile Organic Compounds</b>						
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NC	0.081 U	0.074 U	0.075 U	0.21 U
2,4,5-Trichlorophenol	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U
2,4,6-Trichlorophenol	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U
2,4-Dichlorophenol	mg/kg	NC	0.081 U	0.074 U	0.075 U	0.21 U
2,4-Dimethylphenol	mg/kg	NC	0.4 U	0.37 U	0.37 U	0.1 J
2,4-Dinitrophenol	mg/kg	NC	2 UJ	1.9 UJ	1.9 UJ	5.3 UJ
2,4-Dinitrotoluene	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U
2,6-Dinitrotoluene	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U
2-Chloronaphthalene	mg/kg	NC	0.081 U	0.074 U	0.075 U	0.21 U
2-Chlorophenol	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U
2-Methylnaphthalene	mg/kg	NC	0.081 U	0.045 J	0.075 U	0.9
2-Methylphenol	mg/kg	1000	0.4 U	0.37 U	0.37 U	1.1 U
2-Nitroaniline	mg/kg	NC	2 U	1.9 U	1.9 U	5.3 U
2-Nitrophenol	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U
3,3'-Dichlorobenzidine	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U
3-Nitroaniline	mg/kg	NC	2 U	1.9 U	1.9 U	5.3 U
4,6-Dinitro-2-methylphenol	mg/kg	NC	1.9 U	1.7 U	1.7 U	5 U
4-Bromophenyl phenyl ether	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U
4-Chloro-3-methylphenol	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

	Location ID:	SB-5-07	SB-6-07	SB-6-07	SB-7-07	SB-8-07	
	Sample Name:	SO-37191-072507-RN-SB-05	SO-37191-073007-CB-SB6	SO-37191-073007-CB-SB19	SO-37191-072507-RN-SB-7	SO-37191-072507-RN-SB-8	
	Sample Date:	7/25/2007	7/30/2007	7/30/2007	7/25/2007	7/25/2007	
	Depth:	4 - 8 ft	6 - 10.4 ft	6 - 10.4 ft	3 - 6 ft	3.5 - 8 ft	
				Duplicate			
	6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial						
Parameters	Units <sup>1</sup>						
<i>Semi-Volatiles (Cont'd.)</i>							
4-Chloroaniline	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U	0.41 U
4-Chlorophenyl phenyl ether	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U	0.41 U
4-Methylphenol	mg/kg	1000	0.4 U	0.37 U	0.37 U	0.19 J	0.41 U
4-Nitroaniline	mg/kg	NC	2 U	1.9 U	1.9 U	5.3 U	2.1 U
4-Nitrophenol	mg/kg	NC	2 U	1.9 U	1.9 U	5.3 U	2.1 U
Acenaphthene	mg/kg	1000	0.081 U	0.096	0.041 J	0.69	0.032 J
Acenaphthylene	mg/kg	1000	0.081 U	0.074 U	0.075 U	4.5	0.029 J
Acetophenone	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U	0.41 U
Anthracene	mg/kg	1000	0.081 U	0.22	0.089	6	0.29
Atrazine	mg/kg	NC	0.4 UJ	0.37 UJ	0.37 U	1.1 UJ	0.41 UJ
Benzaldehyde	mg/kg	NC	0.4 UJ	0.37 U	0.37 UJ	1.1 UJ	0.41 UJ
Benzo(a)anthracene	mg/kg	11	0.081 U	0.37	0.2	15	0.82
Benzo(a)pyrene	mg/kg	1.1	0.081 U	0.28	0.15	14	0.69
Benzo(b)fluoranthene	mg/kg	11	0.081 U	0.48	0.2	17	0.91
Benzo(g,h,i)perylene	mg/kg	1000	0.081 U	0.15	0.095	9.2	0.56
Benzo(k)fluoranthene	mg/kg	110	0.081 U	0.074 U	0.085	4.5	0.31
Biphenyl	mg/kg	NC	0.4 U	0.37 U	0.37 U	0.22 J	0.41 U
bis(2-Chloroethoxy)methane	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U	0.41 U
bis(2-Chloroethyl)ether	mg/kg	NC	0.081 U	0.074 U	0.075 U	0.21 U	0.082 U
bis(2-Ethylhexyl)phthalate	mg/kg	NC	0.1 J	0.37 U	0.098 J	1.1 U	0.41 U
Butyl benzylphthalate	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U	0.41 U
Caprolactam	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U	0.41 U
Carbazole	mg/kg	NC	0.081 U	0.12	0.044 J	1.1	0.087
Chrysene	mg/kg	110	0.081 U	0.33	0.19	13	0.79
Dibenz(a,h)anthracene	mg/kg	1.1	0.081 U	0.074 U	0.075 U	2.4	0.14
Dibenzofuran	mg/kg	1000	0.4 U	0.1 J	0.04 J	1.6	0.043 J
Diethyl phthalate	mg/kg	NC	0.4 U	0.37 U	0.37 U	0.29 J	0.41 U
Dimethyl phthalate	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U	0.41 U
Di-n-butylphthalate	mg/kg	NC	0.4 U	0.37 U	0.37 U	0.2 J	1
Di-n-octyl phthalate	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U	0.41 U
Fluoranthene	mg/kg	1000	0.081 U	0.96	0.44	30	1.4
Fluorene	mg/kg	1000	0.081 U	0.12	0.053 J	2.5	0.06 J
Hexachlorobenzene	mg/kg	12	0.081 U	0.074 U	0.075 U	0.21 U	0.082 U
Hexachlorobutadiene	mg/kg	NC	0.081 U	0.074 U	0.075 U	0.21 U	0.082 U
Hexachlorocyclopentadiene	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U	0.41 U



TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

<i>Location ID:</i>	SB-5-07	SB-6-07	SB-6-07	SB-7-07	SB-8-07
<i>Sample Name:</i>	SO-37191-072507-RN-SB-05	SO-37191-073007-CB-SB6	SO-37191-073007-CB-SB19	SO-37191-072507-RN-SB-7	SO-37191-072507-RN-SB-8
<i>Sample Date:</i>	7/25/2007	7/30/2007	7/30/2007	7/25/2007	7/25/2007
<i>Depth:</i>	4 - 8 ft	6 - 10.4 ft	6 - 10.4 ft	3 - 6 ft	3.5 - 8 ft

Duplicate

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

<i>Parameters</i>	<i>Units</i> <sup>1</sup>					
<i>Semi-Volatiles (Cont'd.)</i>						
Hexachloroethane	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U
Indeno(1,2,3-cd)pyrene	mg/kg	11	0.081 U	0.12	0.079	8.5
Isophorone	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U
Naphthalene	mg/kg	1000	0.081 U	0.11	0.037 J	1.4
Nitrobenzene	mg/kg	NC	0.081 U	0.074 U	0.075 U	0.21 U
N-Nitrosodi-n-propylamine	mg/kg	NC	0.081 U	0.074 U	0.075 U	0.21 U
N-Nitrosodiphenylamine	mg/kg	NC	0.4 U	0.37 U	0.37 U	1.1 U
Pentachlorophenol	mg/kg	55	0.4 U	0.37 U	0.37 U	1.1 U
Phenanthrene	mg/kg	1000	0.081 U	0.97	0.44	20
Phenol	mg/kg	1000	0.081 U	0.074 U	0.075 U	0.21 U
Pyrene	mg/kg	1000	0.081 U	0.78	0.4	26
<i>Metals</i>						
Aluminum	mg/kg	NC	15800	--	--	9450
Antimony	mg/kg	NC	1.2 U	--	--	3.0
Arsenic	mg/kg	16	9.7	--	--	21.4
Barium	mg/kg	10000	132	--	--	2310
Beryllium	mg/kg	2700	1.3	--	--	0.85
Cadmium	mg/kg	60	0.37 J	--	--	1.4
Calcium	mg/kg	NC	2830	--	--	15500
Chromium Total <sup>2</sup>	mg/kg	800	23.6	--	--	15.8
Cobalt	mg/kg	NC	15.2	--	--	5.7 J
Copper	mg/kg	10000	31.2	--	--	114
Iron	mg/kg	NC	32500	--	--	23200
Lead	mg/kg	3900	14.5	5.1	6.2	46.0
Magnesium	mg/kg	NC	6000	--	--	5730
Manganese	mg/kg	10000	602	--	--	392
Mercury	mg/kg	5.7	0.022 J	--	--	0.48
Nickel	mg/kg	10000	35.1	--	--	13.8
Potassium	mg/kg	NC	1650	--	--	1060
Selenium	mg/kg	6800	1.2 U	--	--	0.86
Silver	mg/kg	6800	0.60 U	--	--	189
Sodium	mg/kg	NC	275 J	--	--	179 J
Thallium	mg/kg	NC	1.2 U	--	--	1.2 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

		Location ID:	SB-5-07	SB-6-07	SB-6-07	SB-7-07	SB-8-07
		Sample Name:	SO-37191-072507-RN-SB-05	SO-37191-073007-CB-SB6	SO-37191-073007-CB-SB19	SO-37191-072507-RN-SB-7	SO-37191-072507-RN-SB-8
		Sample Date:	7/25/2007	7/30/2007	7/30/2007	7/25/2007	7/25/2007
		Depth:	4 - 8 ft	6 - 10.4 ft	6 - 10.4 ft	3 - 6 ft	3.5 - 8 ft
					Duplicate		
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial					
Parameters	Units <sup>1</sup>						
<i>Metals (Cont'd.)</i>							
Vanadium	mg/kg	NC	31.4	--	--	--	22.9
Zinc	mg/kg	10000	80.4	--	--	--	305
<i>Herbicides</i>							
2,4,5-T	mg/kg	NC	0.024 U	--	--	--	0.025 U
2,4,5-TP (Silvex)	mg/kg	1000	0.024 U	--	--	--	0.025 U
2,4-DB	mg/kg	NC	0.097 U	--	--	--	0.098 U
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/kg	NC	0.097 U	--	--	--	0.098 U
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg	NC	9.7 U	--	--	--	9.8 U
Dalapon	mg/kg	NC	0.11 U	--	--	--	0.11 U
Dicamba	mg/kg	NC	0.048 U	--	--	--	0.049 U
Dichlorprop	mg/kg	NC	0.097 U	--	--	--	0.098 U
Dinoseb	mg/kg	NC	0.015 U	--	--	--	0.015 U
Mecoprop (MCP)	mg/kg	NC	9.7 U	--	--	--	9.8 U
<i>Pesticides</i>							
4,4'-DDD	mg/kg	180	0.0021 U	--	--	--	0.0021 U
4,4'-DDE	mg/kg	120	0.0021 U	--	--	--	0.0021 U
4,4'-DDT	mg/kg	94	0.0021 U	--	--	--	0.0021 U
Aldrin	mg/kg	1.4	0.00028 U	--	--	--	0.0021 U
alpha-BHC	mg/kg	6.8	0.0021 U	--	--	--	0.0021 U
alpha-Chlordane	mg/kg	47	0.0021 U	--	--	--	0.0021 U
beta-BHC	mg/kg	14	0.0021 U	--	--	--	0.0021 U
delta-BHC	mg/kg	1000	0.0021 U	--	--	--	0.0021 U
Dieldrin	mg/kg	2.8	0.0021 U	--	--	--	0.0021 U
Endosulfan I	mg/kg	920	0.0021 U	--	--	--	0.0021 U
Endosulfan II	mg/kg	920	0.0021 U	--	--	--	0.0021 U
Endosulfan sulfate	mg/kg	920	0.0021 U	--	--	--	0.0021 U
Endrin	mg/kg	410	0.0021 U	--	--	--	0.0021 U
Endrin aldehyde	mg/kg	NC	0.0021 U	--	--	--	0.0021 U
Endrin ketone	mg/kg	NC	0.0021 U	--	--	--	0.0021 U
gamma-BHC (Lindane)	mg/kg	23	0.0021 U	--	--	--	0.0021 U
gamma-Chlordane	mg/kg	NC	0.0021 U	--	--	--	0.0021 U
Heptachlor	mg/kg	29	0.0021 U	--	--	--	0.0021 U
Heptachlor epoxide	mg/kg	NC	0.0021 U	--	--	--	0.0021 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Parameters	Units <sup>1</sup>	6 NYCRR Part 375- 6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial					
		Location ID: Sample Name: Sample Date: Depth:	SB-5-07 SO-37191-072507-RN-SB-05 7/25/2007 4 - 8 ft	SB-6-07 SO-37191-073007-CB-SB6 7/30/2007 6 - 10.4 ft	SB-6-07 SO-37191-073007-CB-SB19 7/30/2007 6 - 10.4 ft <i>Duplicate</i>	SB-7-07 SO-37191-072507-RN-SB-7 7/25/2007 3 - 6 ft	SB-8-07 SO-37191-072507-RN-SB-8 7/25/2007 3.5 - 8 ft
<b>Pesticides (Cont'd.)</b>							
Methoxychlor	mg/kg	NC	0.004 U	--	--	--	0.0041 U
Toxaphene	mg/kg	NC	0.081 U	--	--	--	0.082 U
<b>PCBs</b>							
Aroclor-1016 (PCB-1016)	mg/kg	25	0.02 U	--	--	--	0.02 U
Aroclor-1221 (PCB-1221)	mg/kg	25	0.02 U	--	--	--	0.02 U
Aroclor-1232 (PCB-1232)	mg/kg	25	0.02 U	--	--	--	0.02 U
Aroclor-1242 (PCB-1242)	mg/kg	25	0.02 U	--	--	--	0.02 U
Aroclor-1248 (PCB-1248)	mg/kg	25	0.02 U	--	--	--	0.02 U
Aroclor-1254 (PCB-1254)	mg/kg	25	0.02 U	--	--	--	0.02 U
Aroclor-1260 (PCB-1260)	mg/kg	25	0.02 U	--	--	--	0.02 U
<b>Wet Chemistry</b>							
Cyanide (total)	mg/kg	10000	0.60 U	--	--	--	0.23 J
Total Solids	%	NC	82.7	89.1	89.9	62.6	81.4

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

		Location ID:	SB-9-07	SB-10-07	SB-11-07	SB-12-07
		Sample Name:	SO-37191-072507-RN-SB-9	SO-37191-072507-RN-SB-10	SO-37191-072607-RN-SB-11	SO-37191-072607-RN-SB-12
		Sample Date:	7/25/2007	7/25/2007	7/26/2007	7/26/2007
		Depth:	3 - 6 ft	3 - 8 ft	2 - 6 ft	3.5 - 6 ft
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial				
Parameters	Units <sup>1</sup>					
<b>Volatile Organic Compounds</b>						
1,1,1-Trichloroethane	mg/kg	1000	0.0061 U	0.0059 U	0.0067 U	0.0062 U
1,1,2,2-Tetrachloroethane	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
1,1,2-Trichloroethane	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
1,1-Dichloroethane	mg/kg	480	0.0061 U	0.0059 U	0.0067 U	0.0062 U
1,1-Dichloroethene	mg/kg	1000	0.0061 U	0.0059 U	0.0067 U	0.0062 U
1,2,4-Trichlorobenzene	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
1,2-Dichlorobenzene	mg/kg	1000	0.0061 U	0.0059 U	0.0067 U	0.0062 U
1,2-Dichloroethane	mg/kg	60	0.0061 U	0.0059 U	0.0067 U	0.0062 U
1,2-Dichloropropane	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
1,3-Dichlorobenzene	mg/kg	560	0.0061 U	0.0059 U	0.0067 U	0.0062 U
1,4-Dichlorobenzene	mg/kg	250	0.0061 U	0.0059 U	0.0067 U	0.0062 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	1000	0.0061 U	0.0059 U	0.0067 U	0.0062 U
2-Hexanone	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
Acetone	mg/kg	1000	0.024 U	0.012 J	0.027 U	0.0085 J
Benzene	mg/kg	89	0.0061 U	0.0059 U	0.0067 U	0.0062 U
Bromodichloromethane	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
Bromoform	mg/kg	NC	0.0061 UJ	0.0059 UJ	0.0067 UJ	0.0062 UJ
Bromomethane (Methyl Bromide)	mg/kg	NC	0.0061 UJ	0.0059 UJ	0.0067 UJ	0.0062 UJ
Carbon disulfide	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
Carbon tetrachloride	mg/kg	44	0.0061 U	0.0059 U	0.0067 U	0.0062 U
Chlorobenzene	mg/kg	1000	0.0061 U	0.0059 U	0.0067 U	0.0062 U
Chloroethane	mg/kg	NC	0.0061 UJ	0.0059 UJ	0.0067 UJ	0.0062 UJ
Chloroform (Trichloromethane)	mg/kg	700	0.0061 U	0.0059 U	0.0067 U	0.0062 U
Chloromethane (Methyl Chloride)	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
cis-1,2-Dichloroethene	mg/kg	1000	0.025	0.0059 U	0.035	0.031
cis-1,3-Dichloropropene	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
Cyclohexane	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
Dibromochloromethane	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
Dichlorodifluoromethane (CFC-12)	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
Ethylbenzene	mg/kg	780	0.0061 U	0.0059 U	0.0067 U	0.0062 U
Isopropylbenzene	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U
Methyl acetate	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

			Location ID:	SB-9-07	SB-10-07	SB-11-07	SB-12-07
			Sample Name:	SO-37191-072507-RN-SB-9	SO-37191-072507-RN-SB-10	SO-37191-072607-RN-SB-11	SO-37191-072607-RN-SB-12
			Sample Date:	7/25/2007	7/25/2007	7/26/2007	7/26/2007
			Depth:	3 - 6 ft	3 - 8 ft	2 - 6 ft	3.5 - 6 ft
			6 NYCRR Part 375- 6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial				
Parameters	Units <sup>1</sup>						
<b>Volatiles (Cont'd.)</b>							
Methyl cyclohexane	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U	
Methyl Tert Butyl Ether	mg/kg	1000	0.0061 U	0.0059 U	0.0067 U	0.0062 U	
Methylene chloride	mg/kg	1000	0.0061 U	0.0059 U	0.0067 U	0.0062 U	
Styrene	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U	
Tetrachloroethene	mg/kg	300	0.0061 U	0.0059 U	0.037	0.0062 U	
Toluene	mg/kg	1000	0.0061 U	0.0059 U	0.0067 U	0.0062 U	
trans-1,2-Dichloroethene	mg/kg	1000	0.0061 U	0.0059 U	0.0067 U	0.0062 U	
trans-1,3-Dichloropropene	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U	
Trichloroethene	mg/kg	400	0.076	0.0017 J	0.21	0.035	
Trichlorofluoromethane (CFC-11)	mg/kg	NC	0.0061 UJ	0.0059 UJ	0.0067 UJ	0.0062 UJ	
Trifluorotrchloroethane (Freon 113)	mg/kg	NC	0.0061 U	0.0059 U	0.0067 U	0.0062 U	
Vinyl chloride	mg/kg	27	0.0061 U	0.0059 U	0.0067 U	0.0062 U	
Xylene (total)	mg/kg	1000	0.018 U	0.018 U	0.02 U	0.019 U	
<b>Semi-Volatile Organic Compounds</b>							
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NC	0.082 U	0.079 U	0.089 U	0.083 U	
2,4,5-Trichlorophenol	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U	
2,4,6-Trichlorophenol	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U	
2,4-Dichlorophenol	mg/kg	NC	0.082 U	0.079 U	0.089 U	0.083 U	
2,4-Dimethylphenol	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U	
2,4-Dinitrophenol	mg/kg	NC	2 UJ	2 UJ	2.2 UJ	2.1 UJ	
2,4-Dinitrotoluene	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U	
2,6-Dinitrotoluene	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U	
2-Chloronaphthalene	mg/kg	NC	0.082 U	0.079 U	0.089 U	0.083 U	
2-Chlorophenol	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U	
2-Methylnaphthalene	mg/kg	NC	0.082 U	0.079 U	0.089 U	0.083 U	
2-Methylphenol	mg/kg	1000	0.4 U	0.39 U	0.44 U	0.41 U	
2-Nitroaniline	mg/kg	NC	2 U	2 U	2.2 U	2.1 U	
2-Nitrophenol	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U	
3,3'-Dichlorobenzidine	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U	
3-Nitroaniline	mg/kg	NC	2 U	2 U	2.2 U	2.1 U	
4,6-Dinitro-2-methylphenol	mg/kg	NC	1.9 U	1.8 U	2.1 U	2 U	
4-Bromophenyl phenyl ether	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U	
4-Chloro-3-methylphenol	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U	

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

		Location ID:	SB-9-07	SB-10-07	SB-11-07	SB-12-07
		Sample Name:	SO-37191-072507-RN-SB-9	SO-37191-072507-RN-SB-10	SO-37191-072607-RN-SB-11	SO-37191-072607-RN-SB-12
		Sample Date:	7/25/2007	7/25/2007	7/26/2007	7/26/2007
		Depth:	3 - 6 ft	3 - 8 ft	2 - 6 ft	3.5 - 6 ft
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial				
Parameters	Units <sup>1</sup>					
<i>Semi-Volatiles (Cont'd.)</i>						
4-Chloroaniline	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U
4-Chlorophenyl phenyl ether	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U
4-Methylphenol	mg/kg	1000	0.4 U	0.39 U	0.44 U	0.41 U
4-Nitroaniline	mg/kg	NC	2 U	2 U	2.2 U	2.1 U
4-Nitrophenol	mg/kg	NC	2 U	2 U	2.2 U	2.1 U
Acenaphthene	mg/kg	1000	0.082 U	0.079 U	0.027 J	0.083 U
Acenaphthylene	mg/kg	1000	0.082 U	0.079 U	0.089 U	0.083 U
Acetophenone	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U
Anthracene	mg/kg	1000	0.082 U	0.028 J	0.2	0.083 U
Atrazine	mg/kg	NC	0.4 UJ	0.39 UJ	0.44 UJ	0.41 UJ
Benzaldehyde	mg/kg	NC	0.4 UJ	0.39 UJ	0.44 UJ	0.41 UJ
Benzo(a)anthracene	mg/kg	11	0.04 J	0.09	0.78	0.083 U
Benzo(a)pyrene	mg/kg	1.1	0.053 J	0.085	0.78	0.083 U
Benzo(b)fluoranthene	mg/kg	11	0.071 J	0.11	0.93	0.083 U
Benzo(g,h,i)perylene	mg/kg	1000	0.059 J	0.085	0.68	0.083 U
Benzo(k)fluoranthene	mg/kg	110	0.024 J	0.045 J	0.3	0.083 U
Biphenyl	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U
bis(2-Chloroethoxy)methane	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U
bis(2-Chloroethyl)ether	mg/kg	NC	0.082 U	0.079 U	0.089 U	0.083 U
bis(2-Ethylhexyl)phthalate	mg/kg	NC	0.082 J	0.087 J	0.44 U	0.11 J
Butyl benzylphthalate	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U
Caprolactam	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U
Carbazole	mg/kg	NC	0.082 U	0.079 U	0.042 J	0.083 U
Chrysene	mg/kg	110	0.045 J	0.087	0.7	0.083 U
Dibenz(a,h)anthracene	mg/kg	1.1	0.082 U	0.079 U	0.09	0.083 U
Dibenzofuran	mg/kg	1000	0.4 U	0.39 U	0.03 J	0.41 U
Diethyl phthalate	mg/kg	NC	0.4 U	0.39 U	0.26 J	0.41 U
Dimethyl phthalate	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U
Di-n-butylphthalate	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U
Di-n-octyl phthalate	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U
Fluoranthene	mg/kg	1000	0.054 J	0.15	1.3	0.083 U
Fluorene	mg/kg	1000	0.082 U	0.079 U	0.034 J	0.083 U
Hexachlorobenzene	mg/kg	12	0.082 U	0.079 U	0.089 U	0.083 U
Hexachlorobutadiene	mg/kg	NC	0.082 U	0.079 U	0.089 U	0.083 U
Hexachlorocyclopentadiene	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Parameters	Units <sup>1</sup>	6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial				
		Location ID: Sample Name: Sample Date: Depth:	SB-9-07 SO-37191-072507-RN-SB-9 7/25/2007 3 - 6 ft	SB-10-07 SO-37191-072507-RN-SB-10 7/25/2007 3 - 8 ft	SB-11-07 SO-37191-072607-RN-SB-11 7/26/2007 2 - 6 ft	SB-12-07 SO-37191-072607-RN-SB-12 7/26/2007 3.5 - 6 ft
<b>Semi-Volatiles (Cont'd.)</b>						
Hexachloroethane	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U
Indeno(1,2,3-cd)pyrene	mg/kg	11	0.049 J	0.076 J	0.55	0.083 U
Isophorone	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U
Naphthalene	mg/kg	1000	0.082 U	0.079 U	0.024 J	0.083 U
Nitrobenzene	mg/kg	NC	0.082 U	0.079 U	0.089 U	0.083 U
N-Nitrosodi-n-propylamine	mg/kg	NC	0.082 U	0.079 U	0.089 U	0.083 U
N-Nitrosodiphenylamine	mg/kg	NC	0.4 U	0.39 U	0.44 U	0.41 U
Pentachlorophenol	mg/kg	55	0.4 U	0.39 U	0.44 U	0.41 U
Phenanthrene	mg/kg	1000	0.032 J	0.1	0.6	0.083 U
Phenol	mg/kg	1000	0.082 U	0.079 U	0.089 U	0.083 U
Pyrene	mg/kg	1000	0.054 J	0.13	1.3	0.083 U
<b>Metals</b>						
Aluminum	mg/kg	NC	--	--	--	11300
Antimony	mg/kg	NC	--	--	--	1.2 U
Arsenic	mg/kg	16	--	--	--	4.2
Barium	mg/kg	10000	--	--	--	107
Beryllium	mg/kg	2700	--	--	--	0.79
Cadmium	mg/kg	60	--	--	--	0.36 J
Calcium	mg/kg	NC	--	--	--	89800
Chromium Total <sup>2</sup>	mg/kg	800	--	--	--	16.5
Cobalt	mg/kg	NC	--	--	--	7.8
Copper	mg/kg	10000	--	--	--	18.5
Iron	mg/kg	NC	--	--	--	17500
Lead	mg/kg	3900	25.6	196	2160	8.2
Magnesium	mg/kg	NC	--	--	--	15500
Manganese	mg/kg	10000	--	--	--	343
Mercury	mg/kg	5.7	--	--	--	0.041 U
Nickel	mg/kg	10000	--	--	--	19.8
Potassium	mg/kg	NC	--	--	--	2320
Selenium	mg/kg	6800	--	--	--	0.62 U
Silver	mg/kg	6800	--	--	--	0.62 U
Sodium	mg/kg	NC	--	--	--	239 J
Thallium	mg/kg	NC	--	--	--	1.2 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

		Location ID:	SB-9-07	SB-10-07	SB-11-07	SB-12-07
		Sample Name:	SO-37191-072507-RN-SB-9	SO-37191-072507-RN-SB-10	SO-37191-072607-RN-SB-11	SO-37191-072607-RN-SB-12
		Sample Date:	7/25/2007	7/25/2007	7/26/2007	7/26/2007
		Depth:	3 - 6 ft	3 - 8 ft	2 - 6 ft	3.5 - 6 ft
		6 NYCRR Part 375-6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial				
Parameters	Units <sup>1</sup>					
<b>Metals (Cont'd.)</b>						
Vanadium	mg/kg	NC	--	--	--	22.1
Zinc	mg/kg	10000	--	--	--	46.2
<b>Herbicides</b>						
2,4,5-T	mg/kg	NC	--	--	--	0.025 U
2,4,5-TP (Silvex)	mg/kg	1000	--	--	--	0.025 U
2,4-DB	mg/kg	NC	--	--	--	0.099 U
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/kg	NC	--	--	--	0.099 U
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg	NC	--	--	--	9.9 U
Dalapon	mg/kg	NC	--	--	--	0.11 U
Dicamba	mg/kg	NC	--	--	--	0.05 U
Dichlorprop	mg/kg	NC	--	--	--	0.099 U
Dinoseb	mg/kg	NC	--	--	--	0.015 U
Mecoprop (MCPP)	mg/kg	NC	--	--	--	9.9 U
<b>Pesticides</b>						
4,4'-DDD	mg/kg	180	--	--	--	0.0021 U
4,4'-DDE	mg/kg	120	--	--	--	0.0021 U
4,4'-DDT	mg/kg	94	--	--	--	0.0021 U
Aldrin	mg/kg	1.4	--	--	--	0.0021 U
alpha-BHC	mg/kg	6.8	--	--	--	0.0021 U
alpha-Chlordane	mg/kg	47	--	--	--	0.0021 U
beta-BHC	mg/kg	14	--	--	--	0.0021 U
delta-BHC	mg/kg	1000	--	--	--	0.0021 U
Dieldrin	mg/kg	2.8	--	--	--	0.0021 U
Endosulfan I	mg/kg	920	--	--	--	0.0021 U
Endosulfan II	mg/kg	920	--	--	--	0.0021 U
Endosulfan sulfate	mg/kg	920	--	--	--	0.0021 U
Endrin	mg/kg	410	--	--	--	0.0021 U
Endrin aldehyde	mg/kg	NC	--	--	--	0.0021 U
Endrin ketone	mg/kg	NC	--	--	--	0.0021 U
gamma-BHC (Lindane)	mg/kg	23	--	--	--	0.0021 U
gamma-Chlordane	mg/kg	NC	--	--	--	0.0021 U
Heptachlor	mg/kg	29	--	--	--	0.0021 U
Heptachlor epoxide	mg/kg	NC	--	--	--	0.0021 U



TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Parameters	Units <sup>1</sup>	6 NYCRR Part 375- 6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial			
		SB-9-07	SB-10-07	SB-11-07	SB-12-07
<i>Location ID:</i> SB-9-07 SB-10-07 SB-11-07 SB-12-07					
<i>Sample Name:</i> SO-37191-072507-RN-SB-9 SO-37191-072507-RN-SB-10 SO-37191-072607-RN-SB-11 SO-37191-072607-RN-SB-12					
<i>Sample Date:</i> 7/25/2007 7/25/2007 7/26/2007 7/26/2007					
<i>Depth:</i> 3 - 6 ft 3 - 8 ft 2 - 6 ft 3.5 - 6 ft					
<i>Pesticides (Cont'd.)</i>					
Methoxychlor	mg/kg	NC	--	--	0.0041 U
Toxaphene	mg/kg	NC	--	--	0.083 U
<i>PCBs</i>					
Aroclor-1016 (PCB-1016)	mg/kg	25	--	--	0.021 U
Aroclor-1221 (PCB-1221)	mg/kg	25	--	--	0.021 U
Aroclor-1232 (PCB-1232)	mg/kg	25	--	--	0.021 U
Aroclor-1242 (PCB-1242)	mg/kg	25	--	--	0.021 U
Aroclor-1248 (PCB-1248)	mg/kg	25	--	--	0.021 U
Aroclor-1254 (PCB-1254)	mg/kg	25	--	--	0.021 U
Aroclor-1260 (PCB-1260)	mg/kg	25	--	--	0.021 U
<i>Wet Chemistry</i>					
Cyanide (total)	mg/kg	10000	--	--	0.62 U
Total Solids	%	NC	81.8	85.1	75.1

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	SB-13-07	SB-14-07	SB-15-07	SB-16-07
Sample Name:	SO-37191-072607-RN-SB-13	SO-37191-072607-RN-SB-14	SO-37191-072607-RN-SB-15	SO-37191-072607-RN-SB-16
Sample Date:	7/26/2007	7/26/2007	7/26/2007	7/26/2007
Depth:	6 - 8 ft	4 - 8 ft	4 - 8 ft	4 - 8 ft

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units <sup>1</sup>					
<b>Volatile Organic Compounds</b>						
1,1,1-Trichloroethane	mg/kg	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U
1,1,2,2-Tetrachloroethane	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
1,1,2-Trichloroethane	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
1,1-Dichloroethane	mg/kg	480	0.31 U	0.0057 U	0.0061 U	0.0067 U
1,1-Dichloroethene	mg/kg	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U
1,2,4-Trichlorobenzene	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
1,2-Dichlorobenzene	mg/kg	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U
1,2-Dichloroethane	mg/kg	60	0.31 U	0.0057 U	0.0061 U	0.0067 U
1,2-Dichloropropane	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
1,3-Dichlorobenzene	mg/kg	560	0.31 U	0.0057 U	0.0061 U	0.0067 U
1,4-Dichlorobenzene	mg/kg	250	0.31 U	0.0057 U	0.0061 U	0.0067 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U
2-Hexanone	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
Acetone	mg/kg	1000	0.1 J	0.023 UJ	0.024 U	0.027 UJ
Benzene	mg/kg	89	0.31 U	0.0057 U	0.0061 U	0.0067 U
Bromodichloromethane	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
Bromoform	mg/kg	NC	0.31 U	0.0057 UJ	0.0061 UJ	0.0067 UJ
Bromomethane (Methyl Bromide)	mg/kg	NC	0.31 U	0.0057 UJ	0.0061 UJ	0.0067 UJ
Carbon disulfide	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
Carbon tetrachloride	mg/kg	44	0.31 U	0.0057 U	0.0061 U	0.0067 U
Chlorobenzene	mg/kg	1000	0.31 U	0.0057 U	0.0061 U	0.0067 U
Chloroethane	mg/kg	NC	0.31 U	0.0057 UJ	0.0061 UJ	0.0067 UJ
Chloroform (Trichloromethane)	mg/kg	700	0.31 U	0.0057 U	0.0061 U	0.0067 U
Chloromethane (Methyl Chloride)	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
cis-1,2-Dichloroethene	mg/kg	1000	0.71	0.0057 U	0.0061 U	0.0067 U
cis-1,3-Dichloropropene	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
Cyclohexane	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
Dibromochloromethane	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
Dichlorodifluoromethane (CFC-12)	mg/kg	NC	0.31 UJ	0.0057 U	0.0061 U	0.0067 U
Ethylbenzene	mg/kg	780	0.31 U	0.0057 U	0.0061 U	0.0067 U
Isopropylbenzene	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U
Methyl acetate	mg/kg	NC	0.31 U	0.0057 U	0.0061 U	0.0067 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	SB-13-07	SB-14-07	SB-15-07	SB-16-07
Sample Name:	SO-37191-072607-RN-SB-13	SO-37191-072607-RN-SB-14	SO-37191-072607-RN-SB-15	SO-37191-072607-RN-SB-16
Sample Date:	7/26/2007	7/26/2007	7/26/2007	7/26/2007
Depth:	6 - 8 ft	4 - 8 ft	4 - 8 ft	4 - 8 ft

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units <sup>1</sup>				
<b>Volatiles (Cont'd.)</b>					
Methyl cyclohexane	mg/kg	NC	0.31 U	0.0057 U	0.0061 U
Methyl Tert Butyl Ether	mg/kg	1000	0.31 U	0.0057 U	0.0061 U
Methylene chloride	mg/kg	1000	0.31 U	0.0057 U	0.0061 U
Styrene	mg/kg	NC	0.31 U	0.0057 U	0.0061 U
Tetrachloroethene	mg/kg	300	0.13 J	0.0057 U	0.0061 U
Toluene	mg/kg	1000	0.15 J	0.0057 U	0.0061 U
trans-1,2-Dichloroethene	mg/kg	1000	0.31 U	0.0057 U	0.0061 U
trans-1,3-Dichloropropene	mg/kg	NC	0.31 U	0.0057 U	0.0061 U
Trichloroethene	mg/kg	400	9.7	0.0022 J	0.037
Trichlorofluoromethane (CFC-11)	mg/kg	NC	0.31 U	0.0057 U	0.0061 U
Trifluorotrichloroethane (Freon 113)	mg/kg	NC	0.31 U	0.0057 U	0.0061 U
Vinyl chloride	mg/kg	27	0.31 U	0.0057 U	0.0061 U
Xylene (total)	mg/kg	1000	0.92 U	0.017 U	0.018 U
<b>Semi-Volatile Organic Compounds</b>					
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NC	0.082 U	0.077 U	0.082 U
2,4,5-Trichlorophenol	mg/kg	NC	0.4 U	0.38 U	0.4 U
2,4,6-Trichlorophenol	mg/kg	NC	0.4 U	0.38 U	0.4 U
2,4-Dichlorophenol	mg/kg	NC	0.082 U	0.077 U	0.082 U
2,4-Dimethylphenol	mg/kg	NC	0.4 U	0.38 U	0.4 U
2,4-Dinitrophenol	mg/kg	NC	2 U	1.9 U	2 U
2,4-Dinitrotoluene	mg/kg	NC	0.4 U	0.38 U	0.4 U
2,6-Dinitrotoluene	mg/kg	NC	0.4 U	0.38 U	0.4 U
2-Chloronaphthalene	mg/kg	NC	0.082 U	0.077 U	0.082 U
2-Chlorophenol	mg/kg	NC	0.4 U	0.38 U	0.4 U
2-Methylnaphthalene	mg/kg	NC	0.082 U	0.077 U	0.082 U
2-Methylphenol	mg/kg	1000	0.4 U	0.38 U	0.4 U
2-Nitroaniline	mg/kg	NC	2 U	1.9 U	2 U
2-Nitrophenol	mg/kg	NC	0.4 U	0.38 U	0.4 U
3,3'-Dichlorobenzidine	mg/kg	NC	0.4 U	0.38 U	0.4 U
3-Nitroaniline	mg/kg	NC	2 U	1.9 U	2 U
4,6-Dinitro-2-methylphenol	mg/kg	NC	1.9 U	1.8 U	1.9 U
4-Bromophenyl phenyl ether	mg/kg	NC	0.4 U	0.38 U	0.4 U
4-Chloro-3-methylphenol	mg/kg	NC	0.4 U	0.38 U	0.4 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

	Location ID:	SB-13-07	SB-14-07	SB-15-07	SB-16-07
	Sample Name:	SO-37191-072607-RN-SB-13	SO-37191-072607-RN-SB-14	SO-37191-072607-RN-SB-15	SO-37191-072607-RN-SB-16
	Sample Date:	7/26/2007	7/26/2007	7/26/2007	7/26/2007
	Depth:	6 - 8 ft	4 - 8 ft	4 - 8 ft	4 - 8 ft
6 NYCRR Part 375- 6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial					
Parameters	Units <sup>1</sup>				
<b>Semi-Volatiles (Cont'd.)</b>					
4-Chloroaniline	mg/kg	NC	0.4 U	0.38 U	0.4 U
4-Chlorophenyl phenyl ether	mg/kg	NC	0.4 U	0.38 U	0.4 U
4-Methylphenol	mg/kg	1000	0.4 U	0.38 U	0.4 U
4-Nitroaniline	mg/kg	NC	2 U	1.9 U	2 U
4-Nitrophenol	mg/kg	NC	2 U	1.9 U	2 U
Acenaphthene	mg/kg	1000	0.082 U	0.077 U	0.082 U
Acenaphthylene	mg/kg	1000	0.082 U	0.077 U	0.082 U
Acetophenone	mg/kg	NC	0.4 U	0.38 U	0.4 U
Anthracene	mg/kg	1000	0.082 U	0.077 U	0.082 U
Atrazine	mg/kg	NC	0.4 U	0.38 U	0.4 U
Benzaldehyde	mg/kg	NC	0.4 U	0.38 U	0.4 U
Benzo(a)anthracene	mg/kg	11	0.082 U	0.077 U	0.082 U
Benzo(a)pyrene	mg/kg	1.1	0.082 U	0.077 U	0.082 U
Benzo(b)fluoranthene	mg/kg	11	0.082 U	0.077 U	0.082 U
Benzo(g,h,i)perylene	mg/kg	1000	0.082 U	0.077 U	0.082 U
Benzo(k)fluoranthene	mg/kg	110	0.082 U	0.077 U	0.082 U
Biphenyl	mg/kg	NC	0.4 U	0.38 U	0.4 U
bis(2-Chloroethoxy)methane	mg/kg	NC	0.4 U	0.38 U	0.4 U
bis(2-Chloroethyl)ether	mg/kg	NC	0.082 U	0.077 U	0.082 U
bis(2-Ethylhexyl)phthalate	mg/kg	NC	0.051 J	0.38 U	0.4 U
Butyl benzylphthalate	mg/kg	NC	0.4 U	0.38 U	0.4 U
Caprolactam	mg/kg	NC	0.4 U	0.38 U	0.4 U
Carbazole	mg/kg	NC	0.082 U	0.077 U	0.082 U
Chrysene	mg/kg	110	0.082 U	0.077 U	0.082 U
Dibenz(a,h)anthracene	mg/kg	1.1	0.082 U	0.077 U	0.082 U
Dibenzofuran	mg/kg	1000	0.4 U	0.38 U	0.4 U
Diethyl phthalate	mg/kg	NC	0.039 J	0.38 U	0.4 U
Dimethyl phthalate	mg/kg	NC	0.4 U	0.38 U	0.4 U
Di-n-butylphthalate	mg/kg	NC	0.4 U	0.38 U	0.4 U
Di-n-octyl phthalate	mg/kg	NC	0.4 U	0.38 U	0.4 U
Fluoranthene	mg/kg	1000	0.082 U	0.077 U	0.082 U
Fluorene	mg/kg	1000	0.082 U	0.077 U	0.082 U
Hexachlorobenzene	mg/kg	12	0.082 U	0.077 U	0.082 U
Hexachlorobutadiene	mg/kg	NC	0.082 U	0.077 U	0.082 U
Hexachlorocyclopentadiene	mg/kg	NC	0.4 U	0.38 U	0.4 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	SB-13-07	SB-14-07	SB-15-07	SB-16-07
Sample Name:	SO-37191-072607-RN-SB-13	SO-37191-072607-RN-SB-14	SO-37191-072607-RN-SB-15	SO-37191-072607-RN-SB-16
Sample Date:	7/26/2007	7/26/2007	7/26/2007	7/26/2007
Depth:	6 - 8 ft	4 - 8 ft	4 - 8 ft	4 - 8 ft

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units <sup>1</sup>				
<i>Semi-Volatiles (Cont'd.)</i>					
Hexachloroethane	mg/kg	NC	0.4 U	0.38 U	0.4 U
Indeno(1,2,3-cd)pyrene	mg/kg	11	0.082 U	0.077 U	0.082 U
Isophorone	mg/kg	NC	0.4 U	0.38 U	0.4 U
Naphthalene	mg/kg	1000	0.082 U	0.077 U	0.082 U
Nitrobenzene	mg/kg	NC	0.082 U	0.077 U	0.082 U
N-Nitrosodi-n-propylamine	mg/kg	NC	0.082 U	0.077 U	0.082 U
N-Nitrosodiphenylamine	mg/kg	NC	0.4 U	0.38 U	0.4 U
Pentachlorophenol	mg/kg	55	0.4 U	0.38 U	0.4 U
Phenanthrene	mg/kg	1000	0.082 U	0.077 U	0.082 U
Phenol	mg/kg	1000	0.082 U	0.077 U	0.082 U
Pyrene	mg/kg	1000	0.082 U	0.077 U	0.082 U
<i>Metals</i>					
Aluminum	mg/kg	NC	--	--	--
Antimony	mg/kg	NC	--	--	--
Arsenic	mg/kg	16	--	--	--
Barium	mg/kg	10000	--	--	--
Beryllium	mg/kg	2700	--	--	--
Cadmium	mg/kg	60	--	--	--
Calcium	mg/kg	NC	--	--	--
Chromium Total <sup>2</sup>	mg/kg	800	--	--	--
Cobalt	mg/kg	NC	--	--	--
Copper	mg/kg	10000	--	--	--
Iron	mg/kg	NC	--	--	--
Lead	mg/kg	3900	7.3	4.4	10.5
Magnesium	mg/kg	NC	--	--	--
Manganese	mg/kg	10000	--	--	--
Mercury	mg/kg	5.7	--	--	--
Nickel	mg/kg	10000	--	--	--
Potassium	mg/kg	NC	--	--	--
Selenium	mg/kg	6800	--	--	--
Silver	mg/kg	6800	--	--	--
Sodium	mg/kg	NC	--	--	--
Thallium	mg/kg	NC	--	--	--

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Parameters	Units <sup>1</sup>	6 NYCRR Part 375- 6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial				
		Location ID: Sample Name: Sample Date: Depth:	SB-13-07 SO-37191-072607-RN-SB-13 7/26/2007 6 - 8 ft	SB-14-07 SO-37191-072607-RN-SB-14 7/26/2007 4 - 8 ft	SB-15-07 SO-37191-072607-RN-SB-15 7/26/2007 4 - 8 ft	SB-16-07 SO-37191-072607-RN-SB-16 7/26/2007 4 - 8 ft
<b>Metals (Cont'd.)</b>						
Vanadium	mg/kg	NC	--	--	--	--
Zinc	mg/kg	10000	--	--	--	--
<b>Herbicides</b>						
2,4,5-T	mg/kg	NC	--	--	--	--
2,4,5-TP (Silvex)	mg/kg	1000	--	--	--	--
2,4-DB	mg/kg	NC	--	--	--	--
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/kg	NC	--	--	--	--
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg	NC	--	--	--	--
Dalapon	mg/kg	NC	--	--	--	--
Dicamba	mg/kg	NC	--	--	--	--
Dichlorprop	mg/kg	NC	--	--	--	--
Dinoseb	mg/kg	NC	--	--	--	--
Mecoprop (MCPP)	mg/kg	NC	--	--	--	--
<b>Pesticides</b>						
4,4'-DDD	mg/kg	180	--	--	--	--
4,4'-DDE	mg/kg	120	--	--	--	--
4,4'-DDT	mg/kg	94	--	--	--	--
Aldrin	mg/kg	1.4	--	--	--	--
alpha-BHC	mg/kg	6.8	--	--	--	--
alpha-Chlordane	mg/kg	47	--	--	--	--
beta-BHC	mg/kg	14	--	--	--	--
delta-BHC	mg/kg	1000	--	--	--	--
Dieldrin	mg/kg	2.8	--	--	--	--
Endosulfan I	mg/kg	920	--	--	--	--
Endosulfan II	mg/kg	920	--	--	--	--
Endosulfan sulfate	mg/kg	920	--	--	--	--
Endrin	mg/kg	410	--	--	--	--
Endrin aldehyde	mg/kg	NC	--	--	--	--
Endrin ketone	mg/kg	NC	--	--	--	--
gamma-BHC (Lindane)	mg/kg	23	--	--	--	--
gamma-Chlordane	mg/kg	NC	--	--	--	--
Heptachlor	mg/kg	29	--	--	--	--
Heptachlor epoxide	mg/kg	NC	--	--	--	--

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

	Location ID:	SB-13-07	SB-14-07	SB-15-07	SB-16-07
	Sample Name:	SO-37191-072607-RN-SB-13	SO-37191-072607-RN-SB-14	SO-37191-072607-RN-SB-15	SO-37191-072607-RN-SB-16
	Sample Date:	7/26/2007	7/26/2007	7/26/2007	7/26/2007
	Depth:	6 - 8 ft	4 - 8 ft	4 - 8 ft	4 - 8 ft
	6 NYCRR Part 375- 6.8(b): Restricted Use Soil Cleanup Objectives Protection of Public Health - Industrial				
Parameters	Units <sup>1</sup>				
<b>Pesticides (Cont'd.)</b>					
Methoxychlor	mg/kg	NC	--	--	--
Toxaphene	mg/kg	NC	--	--	--
<b>PCBs</b>					
Aroclor-1016 (PCB-1016)	mg/kg	25	--	--	--
Aroclor-1221 (PCB-1221)	mg/kg	25	--	--	--
Aroclor-1232 (PCB-1232)	mg/kg	25	--	--	--
Aroclor-1242 (PCB-1242)	mg/kg	25	--	--	--
Aroclor-1248 (PCB-1248)	mg/kg	25	--	--	--
Aroclor-1254 (PCB-1254)	mg/kg	25	--	--	--
Aroclor-1260 (PCB-1260)	mg/kg	25	--	--	--
<b>Wet Chemistry</b>					
Cyanide (total)	mg/kg	10000	--	--	--
Total Solids	%	NC	81.6	87.3	82.1

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	SB-17-07	SB-17-07	SB-18-07
Sample Name:	SO-37191-072707-RN-SB-17	SO-37191-072707-RN-SB-27	SO-37191-073007-CB-SB18
Sample Date:	7/27/2007	7/27/2007	7/30/2007
Depth:	6 - 10 ft	6 - 10 ft	4 - 7.2 ft
		Duplicate	

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units <sup>1</sup>				
<b>Volatile Organic Compounds</b>					
1,1,1-Trichloroethane	mg/kg	1000	0.0072 U	0.0057 U	0.0052 U
1,1,2,2-Tetrachloroethane	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
1,1,2-Trichloroethane	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
1,1-Dichloroethane	mg/kg	480	0.0072 U	0.0057 U	0.0052 U
1,1-Dichloroethene	mg/kg	1000	0.0072 U	0.0019 J	0.0052 U
1,2,4-Trichlorobenzene	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
1,2-Dibromo-3-chloropropane (DBCP)	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
1,2-Dibromoethane (Ethylene Dibromide)	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
1,2-Dichlorobenzene	mg/kg	1000	0.0072 U	0.0057 U	0.0052 U
1,2-Dichloroethane	mg/kg	60	0.0072 U	0.0057 U	0.0052 U
1,2-Dichloropropane	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
1,3-Dichlorobenzene	mg/kg	560	0.0072 U	0.0057 U	0.0052 U
1,4-Dichlorobenzene	mg/kg	250	0.0072 U	0.0057 U	0.0052 U
2-Butanone (Methyl Ethyl Ketone)	mg/kg	1000	0.0072 U	0.0057 U	0.0052 U
2-Hexanone	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
Acetone	mg/kg	1000	0.029 U	0.023 U	0.021 U
Benzene	mg/kg	89	0.0072 U	0.0057 U	0.0052 U
Bromodichloromethane	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
Bromoform	mg/kg	NC	0.0072 UJ	0.0057 UJ	0.0052 UJ
Bromomethane (Methyl Bromide)	mg/kg	NC	0.0072 UJ	0.0057 UJ	0.0052 UJ
Carbon disulfide	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
Carbon tetrachloride	mg/kg	44	0.0072 U	0.0057 U	0.0052 U
Chlorobenzene	mg/kg	1000	0.0072 U	0.0057 U	0.0052 U
Chloroethane	mg/kg	NC	0.0072 UJ	0.0057 UJ	0.0052 UJ
Chloroform (Trichloromethane)	mg/kg	700	0.0072 U	0.0057 U	0.0052 U
Chloromethane (Methyl Chloride)	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
cis-1,2-Dichloroethene	mg/kg	1000	0.19	0.23	0.0052 U
cis-1,3-Dichloropropene	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
Cyclohexane	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
Dibromochloromethane	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
Dichlorodifluoromethane (CFC-12)	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
Ethylbenzene	mg/kg	780	0.0072 U	0.0025 J	0.0052 U
Isopropylbenzene	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
Methyl acetate	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U



TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	SB-17-07	SB-17-07	SB-18-07
Sample Name:	SO-37191-072707-RN-SB-17	SO-37191-072707-RN-SB-27	SO-37191-073007-CB-SB18
Sample Date:	7/27/2007	7/27/2007	7/30/2007
Depth:	6 - 10 ft	6 - 10 ft	4 - 7.2 ft

Duplicate

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units <sup>1</sup>				
<b>Volatiles (Cont'd.)</b>					
Methyl cyclohexane	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
Methyl Tert Butyl Ether	mg/kg	1000	0.0072 U	0.0057 U	0.0052 U
Methylene chloride	mg/kg	1000	0.0072 U	0.0057 U	0.0052 U
Styrene	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
Tetrachloroethene	mg/kg	300	0.0072 U	0.0057 U	0.0052 U
Toluene	mg/kg	1000	0.0072 U	0.0057 U	0.0052 U
trans-1,2-Dichloroethene	mg/kg	1000	0.0048 J	0.0048 J	0.0052 U
trans-1,3-Dichloropropene	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
Trichloroethene	mg/kg	400	0.14 J	0.13	0.0052 U
Trichlorofluoromethane (CFC-11)	mg/kg	NC	0.0072 UJ	0.0057 UJ	0.0052 U
Trifluorotrichloroethane (Freon 113)	mg/kg	NC	0.0072 U	0.0057 U	0.0052 U
Vinyl chloride	mg/kg	27	0.0081	0.017	0.0052 U
Xylene (total)	mg/kg	1000	0.022 U	0.0077 J	0.016 U
<b>Semi-Volatile Organic Compounds</b>					
2,2'-oxybis(1-Chloropropane) (bis(2-chloroisopropyl) ether)	mg/kg	NC	0.097 U	0.076 U	0.07 U
2,4,5-Trichlorophenol	mg/kg	NC	0.48 U	0.38 U	0.34 U
2,4,6-Trichlorophenol	mg/kg	NC	0.48 U	0.38 U	0.34 U
2,4-Dichlorophenol	mg/kg	NC	0.097 U	0.076 U	0.07 U
2,4-Dimethylphenol	mg/kg	NC	0.48 U	0.38 U	0.34 U
2,4-Dinitrophenol	mg/kg	NC	2.4 UJ	1.9 UJ	1.7 UJ
2,4-Dinitrotoluene	mg/kg	NC	0.48 U	0.38 U	0.34 U
2,6-Dinitrotoluene	mg/kg	NC	0.48 U	0.38 U	0.34 U
2-Chloronaphthalene	mg/kg	NC	0.097 U	0.076 U	0.07 U
2-Chlorophenol	mg/kg	NC	0.48 U	0.38 U	0.34 U
2-Methylnaphthalene	mg/kg	NC	0.097 U	0.076 U	0.07 U
2-Methylphenol	mg/kg	1000	0.48 U	0.38 U	0.34 U
2-Nitroaniline	mg/kg	NC	2.4 U	1.9 U	1.7 U
2-Nitrophenol	mg/kg	NC	0.48 U	0.38 U	0.34 U
3,3'-Dichlorobenzidine	mg/kg	NC	0.48 U	0.38 U	0.34 U
3-Nitroaniline	mg/kg	NC	2.4 U	1.9 U	1.7 U
4,6-Dinitro-2-methylphenol	mg/kg	NC	2.3 U	1.8 U	1.6 U
4-Bromophenyl phenyl ether	mg/kg	NC	0.48 U	0.38 U	0.34 U
4-Chloro-3-methylphenol	mg/kg	NC	0.48 U	0.38 U	0.34 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	SB-17-07	SB-17-07	SB-18-07
Sample Name:	SO-37191-072707-RN-SB-17	SO-37191-072707-RN-SB-27	SO-37191-073007-CB-SB18
Sample Date:	7/27/2007	7/27/2007	7/30/2007
Depth:	6 - 10 ft	6 - 10 ft	4 - 7.2 ft

Duplicate

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units <sup>1</sup>				
<i>Semi-Volatiles (Cont'd.)</i>					
4-Chloroaniline	mg/kg	NC	0.48 U	0.38 U	0.34 U
4-Chlorophenyl phenyl ether	mg/kg	NC	0.48 U	0.38 U	0.34 U
4-Methylphenol	mg/kg	1000	0.48 U	0.38 U	0.34 U
4-Nitroaniline	mg/kg	NC	2.4 U	1.9 U	1.7 U
4-Nitrophenol	mg/kg	NC	2.4 U	1.9 U	1.7 U
Acenaphthene	mg/kg	1000	0.097 U	0.076 U	0.07 U
Acenaphthylene	mg/kg	1000	0.097 U	0.076 U	0.07 U
Acetophenone	mg/kg	NC	0.48 U	0.38 U	0.34 U
Anthracene	mg/kg	1000	0.097 U	0.076 U	0.07 U
Atrazine	mg/kg	NC	0.48 UJ	0.38 UJ	0.34 UJ
Benzaldehyde	mg/kg	NC	0.48 UJ	0.38 UJ	0.34 U
Benzo(a)anthracene	mg/kg	11	0.084 J	0.076 U	0.055 J
Benzo(a)pyrene	mg/kg	1.1	0.089 J	0.013 J	0.054 J
Benzo(b)fluoranthene	mg/kg	11	0.1	0.076 U	0.069 J
Benzo(g,h,i)perylene	mg/kg	1000	0.042 J	0.076 U	0.07 U
Benzo(k)fluoranthene	mg/kg	110	0.028 J	0.076 U	0.034 J
Biphenyl	mg/kg	NC	0.48 U	0.38 U	0.34 U
bis(2-Chloroethoxy)methane	mg/kg	NC	0.48 U	0.38 U	0.34 U
bis(2-Chloroethyl)ether	mg/kg	NC	0.097 U	0.076 U	0.07 U
bis(2-Ethylhexyl)phthalate	mg/kg	NC	0.23 J	0.38 U	0.34 U
Butyl benzylphthalate	mg/kg	NC	0.48 U	0.38 U	0.34 U
Caprolactam	mg/kg	NC	0.48 U	0.38 U	0.34 U
Carbazole	mg/kg	NC	0.097 U	0.076 U	0.07 U
Chrysene	mg/kg	110	0.089 J	0.076 U	0.06 J
Dibenz(a,h)anthracene	mg/kg	1.1	0.097 U	0.076 U	0.07 U
Dibenzofuran	mg/kg	1000	0.48 U	0.38 U	0.34 U
Diethyl phthalate	mg/kg	NC	0.11 J	0.38 U	0.34 U
Dimethyl phthalate	mg/kg	NC	0.48 U	0.38 U	0.34 U
Di-n-butylphthalate	mg/kg	NC	0.48 U	0.38 U	0.34 U
Di-n-octyl phthalate	mg/kg	NC	0.48 U	0.38 U	0.34 U
Fluoranthene	mg/kg	1000	0.13	0.076 U	0.056 J
Fluorene	mg/kg	1000	0.097 U	0.076 U	0.07 U
Hexachlorobenzene	mg/kg	12	0.097 U	0.076 U	0.07 U
Hexachlorobutadiene	mg/kg	NC	0.097 U	0.076 U	0.07 U
Hexachlorocyclopentadiene	mg/kg	NC	0.48 U	0.38 U	0.34 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	SB-17-07	SB-17-07	SB-18-07
Sample Name:	SO-37191-072707-RN-SB-17	SO-37191-072707-RN-SB-27	SO-37191-073007-CB-SB18
Sample Date:	7/27/2007	7/27/2007	7/30/2007
Depth:	6 - 10 ft	6 - 10 ft	4 - 7.2 ft

Duplicate

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units <sup>1</sup>				
<i>Semi-Volatiles (Cont'd.)</i>					
Hexachloroethane	mg/kg	NC	0.48 U	0.38 U	0.34 U
Indeno(1,2,3-cd)pyrene	mg/kg	11	0.042 J	0.076 U	0.07 U
Isophorone	mg/kg	NC	0.48 U	0.38 U	0.34 U
Naphthalene	mg/kg	1000	0.097 U	0.076 U	0.07 U
Nitrobenzene	mg/kg	NC	0.097 U	0.076 U	0.07 U
N-Nitrosodi-n-propylamine	mg/kg	NC	0.097 U	0.076 U	0.07 U
N-Nitrosodiphenylamine	mg/kg	NC	0.48 U	0.38 U	0.34 U
Pentachlorophenol	mg/kg	55	0.48 U	0.38 U	0.34 U
Phenanthrene	mg/kg	1000	0.081 J	0.076 U	0.07 U
Phenol	mg/kg	1000	0.097 U	0.076 U	0.07 U
Pyrene	mg/kg	1000	0.12	0.076 U	0.046 J
<i>Metals</i>					
Aluminum	mg/kg	NC	--	--	6100
Antimony	mg/kg	NC	--	--	1.0 U
Arsenic	mg/kg	16	--	--	3.5
Barium	mg/kg	10000	--	--	56.1
Beryllium	mg/kg	2700	--	--	0.44 U
Cadmium	mg/kg	60	--	--	0.24 J
Calcium	mg/kg	NC	--	--	92600
Chromium Total <sup>2</sup>	mg/kg	800	--	--	9.8
Cobalt	mg/kg	NC	--	--	4.5 J
Copper	mg/kg	10000	--	--	11.6
Iron	mg/kg	NC	--	--	12300
Lead	mg/kg	3900	155 J	13.4 J	6.2
Magnesium	mg/kg	NC	--	--	19100
Manganese	mg/kg	10000	--	--	405
Mercury	mg/kg	5.7	--	--	0.011 J
Nickel	mg/kg	10000	--	--	10.9
Potassium	mg/kg	NC	--	--	1380
Selenium	mg/kg	6800	--	--	0.52 U
Silver	mg/kg	6800	--	--	0.061 J
Sodium	mg/kg	NC	--	--	192 J
Thallium	mg/kg	NC	--	--	1.0 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	SB-17-07	SB-17-07	SB-18-07
Sample Name:	SO-37191-072707-RN-SB-17	SO-37191-072707-RN-SB-27	SO-37191-073007-CB-SB18
Sample Date:	7/27/2007	7/27/2007	7/30/2007
Depth:	6 - 10 ft	6 - 10 ft	4 - 7.2 ft

Duplicate

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units <sup>1</sup>				
<b>Metals (Cont'd.)</b>					
Vanadium	mg/kg	NC	--	--	14.1
Zinc	mg/kg	10000	--	--	38.2
<b>Herbicides</b>					
2,4,5-T	mg/kg	NC	--	--	0.021 U
2,4,5-TP (Silvex)	mg/kg	1000	--	--	0.021 U
2,4-DB	mg/kg	NC	--	--	0.083 U
2,4-Dichlorophenoxyacetic acid (2,4-D)	mg/kg	NC	--	--	0.083 U
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	mg/kg	NC	--	--	8.3 U
Dalapon	mg/kg	NC	--	--	0.093 U
Dicamba	mg/kg	NC	--	--	0.042 U
Dichlorprop	mg/kg	NC	--	--	0.083 U
Dinoseb	mg/kg	NC	--	--	0.012 U
Mecoprop (MCPP)	mg/kg	NC	--	--	8.3 U
<b>Pesticides</b>					
4,4'-DDD	mg/kg	180	--	--	0.0018 U
4,4'-DDE	mg/kg	120	--	--	0.0018 U
4,4'-DDT	mg/kg	94	--	--	0.0018 U
Aldrin	mg/kg	1.4	--	--	0.0018 U
alpha-BHC	mg/kg	6.8	--	--	0.0018 U
alpha-Chlordane	mg/kg	47	--	--	0.0018 U
beta-BHC	mg/kg	14	--	--	0.0018 U
delta-BHC	mg/kg	1000	--	--	0.0018 U
Dieldrin	mg/kg	2.8	--	--	0.0018 U
Endosulfan I	mg/kg	920	--	--	0.0018 U
Endosulfan II	mg/kg	920	--	--	0.0018 U
Endosulfan sulfate	mg/kg	920	--	--	0.0018 U
Endrin	mg/kg	410	--	--	0.0018 U
Endrin aldehyde	mg/kg	NC	--	--	0.0018 U
Endrin ketone	mg/kg	NC	--	--	0.0018 U
gamma-BHC (Lindane)	mg/kg	23	--	--	0.0018 U
gamma-Chlordane	mg/kg	NC	--	--	0.0018 U
Heptachlor	mg/kg	29	--	--	0.0018 U
Heptachlor epoxide	mg/kg	NC	--	--	0.0018 U

TABLE 3B

ANALYTICAL RESULTS SUMMARY  
SOIL INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
JULY - AUGUST 2007

Location ID:	SB-17-07	SB-17-07	SB-18-07
Sample Name:	SO-37191-072707-RN-SB-17	SO-37191-072707-RN-SB-27	SO-37191-073007-CB-SB18
Sample Date:	7/27/2007	7/27/2007	7/30/2007
Depth:	6 - 10 ft	6 - 10 ft	4 - 7.2 ft
		Duplicate	

6 NYCRR Part 375-  
6.8(b): Restricted Use  
Soil Cleanup  
Objectives  
Protection of Public  
Health -  
Industrial

Parameters	Units <sup>1</sup>				
<b>Pesticides (Cont'd.)</b>					
Methoxychlor	mg/kg	NC	--	--	0.0034 U
Toxaphene	mg/kg	NC	--	--	0.07 U
<b>PCBs</b>					
Aroclor-1016 (PCB-1016)	mg/kg	25	--	--	0.017 U
Aroclor-1221 (PCB-1221)	mg/kg	25	--	--	0.017 U
Aroclor-1232 (PCB-1232)	mg/kg	25	--	--	0.017 U
Aroclor-1242 (PCB-1242)	mg/kg	25	--	--	0.017 U
Aroclor-1248 (PCB-1248)	mg/kg	25	--	--	0.017 U
Aroclor-1254 (PCB-1254)	mg/kg	25	--	--	0.017 U
Aroclor-1260 (PCB-1260)	mg/kg	25	--	--	0.017 U
<b>Wet Chemistry</b>					
Cyanide (total)	mg/kg	10000	--	--	0.18 J
Total Solids	%	NC	69.4	87.6	96.3

## Notes:

- <sup>1</sup> Reported results were converted from ug/kg (ppb) to mg/kg (ppm) for ease of comparison to criteria.
- <sup>2</sup> The Soil Cleanup Objective (SCO) for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO. The most restrictive SCO for hexavalent Chromium was used for comparison to the total chromium results.
- Not analyzed.
- 1.0 Exceeds Criteria.
- B Compound detected in an associated blank.
- BHC Benzene Hexachloride.
- D Reported from a diluted analysis.
- E Exceeds the linear range of the instrument.
- GC Gas Chromatograph
- J Estimated.
- N Tentatively identified.
- NC No Criteria.
- P Greater than 25% difference between concentrations detected on the two GC columns.
- PCBs Polychlorinated Biphenyls.
- U Not detected.
- UJ Not detected, estimated reporting limit.

TABLE 4  
 QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INITIAL CALIBRATION RESULTS  
 GROUNDWATER AND SOIL SAMPLING  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

<i>Parameter</i>	<i>Compound</i>	<i>Calibration Date</i>	<i>%RSD</i>	<i>Associated Sample ID</i>	<i>Sample Results</i>	<i>Units</i>	<i>Qualifier</i>
SVOCs	2,4-Dinitrophenol	09/11/07	41	WG-37191-082107-RN-001	53 U	ug/L	UJ
				WG-37191-082107-RN-002	52 U	ug/L	UJ
				WG-37191-082107-RN-007	50 U	ug/L	UJ
SVOCs	Hexachlorocyclopentadiene	09/11/07	38	WG-37191-082107-RN-001	11 U	ug/L	UJ
				WG-37191-082107-RN-002	10 U	ug/L	UJ
				WG-37191-082107-RN-007	9.9 U	ug/L	UJ
SVOCs	2,4-Dinitrophenol	08/03/07	34	SO-37191-072507-RN-SB-05	2000 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-1	2300 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-10	2000 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-7	5300 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-8	2100 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-9	2000 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-11	2200 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-12	2100 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-13	2000 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-14	1900 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-15	2000 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-16	2200 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-17	2400 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-27	1900 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-20	4400 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-2	4100 U	ug/Kg	UJ
SO-37191-072707-RN-SB-3	2000 U	ug/Kg	UJ				
SO-37191-072707-RN-SB-4	2100 U	ug/Kg	UJ				
SO-37191-073007-CB-SB6	1900 U	ug/Kg	UJ				
SVOCs	Benzaldehyde	08/03/07	40	SO-37191-072507-RN-SB-05	400 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-1	460 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-10	390 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-7	1100 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-8	410 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-9	400 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-11	440 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-12	410 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-13	400 U	ug/Kg	UJ

TABLE 4  
 QUALIFIED SAMPLE RESULTS DUE TO OUTLYING INITIAL CALIBRATION RESULTS  
 GROUNDWATER AND SOIL SAMPLING  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

<i>Parameter</i>	<i>Compound</i>	<i>Calibration Date</i>	<i>%RSD</i>	<i>Associated Sample ID</i>	<i>Sample Results</i>	<i>Units</i>	<i>Qualifier</i>
SVOCs	Benzaldehyde	08/03/07	40	SO-37191-072607-RN-SB-14	380 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-15	400 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-16	440 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-17	480 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-27	380 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-20	880 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-2	820 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-3	390 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-4	410 U	ug/Kg	UJ
				SO-37191-073007-CB-SB6	370 U	ug/Kg	UJ

## Notes:

%RSD Percent Relative Standard Deviation.

SVOCs Semi-Volatile Organic Compounds.

U Not detected.

UJ Not detected, estimated reporting limit.

TABLE 5  
 QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS  
 GROUNDWATER AND SOIL SAMPLING  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Sample Results</i>	<i>Units</i>	<i>Qualifier</i>
VOCs	08/27/07	Acetone	41	WG-37191-082107-RN-001	600 U	ug/L	UJ
				WG-37191-082107-RN-004	60000 U	ug/L	UJ
				WG-37191-082107-RN-006	20 U	ug/L	UJ
				WG-37191-082107-RN-007	20 U	ug/L	UJ
VOCs	08/28/07	Chloroethane	74	WG-37191-082107-RN-002	100 U	ug/L	UJ
VOCs	08/30/07	Chloroethane	84	WG-37191-082107-RN-005	1200 U	ug/L	UJ
VOCs	09/02/07	Chloroethane	39	WG-37191-082107-RN-003	12000 U	ug/L	UJ
VOCs	08/27/07	Dichlorodifluoromethane (CFC-12)	39	WG-37191-082107-RN-001	150 U	ug/L	UJ
				WG-37191-082107-RN-004	15000 U	ug/L	UJ
				WG-37191-082107-RN-006	5.0 U	ug/L	UJ
				WG-37191-082107-RN-007	5.0 U	ug/L	UJ
VOCs	09/02/07	Trichlorofluoromethane (CFC-11)	49	WG-37191-082107-RN-003	12000 U	ug/L	UJ
VOCs	08/27/07	Trifluorotrichloroethane (Freon 113)	39	WG-37191-082107-RN-001	150 U	ug/L	UJ
				WG-37191-082107-RN-004	15000 U	ug/L	UJ
				WG-37191-082107-RN-006	5.0 U	ug/L	UJ
				WG-37191-082107-RN-007	5.0 U	ug/L	UJ
VOCs	08/28/07	Trifluorotrichloroethane (Freon 113)	45	WG-37191-082107-RN-002	100 U	ug/L	UJ
VOCs	08/30/07	Trifluorotrichloroethane (Freon 113)	43	WG-37191-082107-RN-005	1200 U	ug/L	UJ
VOCs	08/01/07	Acetone	41	SO-37191-072507-RN-SB-7	1600 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-13	100 J	ug/Kg	J
VOCs	08/01/07	Acetone	28	SO-37191-072507-RN-SB-8	25 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-14	23 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-16	27 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-2	25 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-3	24 U	ug/Kg	UJ



TABLE 5  
 QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS  
 GROUNDWATER AND SOIL SAMPLING  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Sample Results</i>	<i>Units</i>	<i>Qualifier</i>
VOCs	08/01/07	Bromoform	35	SO-37191-072507-RN-SB-05	6.0 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-1	6.9 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-10	5.9 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-9	6.1 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-11	6.7 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-12	6.2 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-15	6.1 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-17	7.2 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-4	6.2 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-20	6.7 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-27	5.7 U	ug/Kg	UJ
VOCs	08/01/07	Bromoform	26	SO-37191-072507-RN-SB-8	6.1 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-14	5.7 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-16	6.7 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-2	6.2 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-3	6.0 U	ug/Kg	UJ
VOCs	08/02/07	Bromoform	31	SO-37191-073007-CB-SB18	5.2 U	ug/Kg	UJ
VOCs	08/01/07	Bromomethane (Methyl Bromide)	36	SO-37191-072507-RN-SB-05	6.0 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-1	6.9 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-10	5.9 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-9	6.1 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-11	6.7 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-12	6.2 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-15	6.1 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-17	7.2 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-4	6.2 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-20	6.7 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-27	5.7 U	ug/Kg	UJ
VOCs	08/01/07	Bromomethane (Methyl Bromide)	34	SO-37191-072507-RN-SB-8	6.1 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-14	5.7 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-16	6.7 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-2	6.2 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-3	6.0 U	ug/Kg	UJ

TABLE 5  
 QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS  
 GROUNDWATER AND SOIL SAMPLING  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Sample Results</i>	<i>Units</i>	<i>Qualifier</i>
VOCs	08/02/07	Bromomethane (Methyl Bromide)	32	SO-37191-073007-CB-SB18	5.2 U	ug/Kg	UJ
VOCs	08/01/07	Chloroethane	38	SO-37191-072507-RN-SB-05	6.0 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-1	6.9 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-10	5.9 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-9	6.1 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-11	6.7 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-12	6.2 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-15	6.1 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-17	7.2 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-4	6.2 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-20	6.7 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-27	5.7 U	ug/Kg	UJ
VOCs	08/01/07	Chloroethane	35	SO-37191-072507-RN-SB-8	6.1 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-14	5.7 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-16	6.7 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-2	6.2 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-3	6.0 U	ug/Kg	UJ
VOCs	08/02/07	Chloroethane	71	SO-37191-073007-CB-SB18	5.2 U	ug/Kg	UJ
VOCs	08/01/07	delta-BHC	20	SO-37191-072507-RN-SB-1	0.54 J	ug/Kg	J
				SO-37191-072707-RN-SB-3	0.33 J	ug/Kg	J
VOCs	08/01/07	Dichlorodifluoromethane (CFC-12)	33	SO-37191-072507-RN-SB-7	400 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-13	310 U	ug/Kg	UJ
VOCs	08/01/07	Trichlorofluoromethane (CFC-11)	35	SO-37191-072507-RN-SB-05	6.0 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-1	6.9 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-10	5.9 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-9	6.1 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-11	6.7 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-12	6.2 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-15	6.1 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-17	7.2 U	ug/Kg	UJ

TABLE 5  
 QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS  
 GROUNDWATER AND SOIL SAMPLING  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Sample Results</i>	<i>Units</i>	<i>Qualifier</i>
VOCs	08/01/07	Trichlorofluoromethane (CFC-11)	35	SO-37191-072707-RN-SB-4	6.2 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-20	6.7 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-27	5.7 U	ug/Kg	UJ
SVOCs	08/12/07	2,4-Dinitrophenol	30	SO-37191-073007-CB-SB18	1700 U	ug/Kg	UJ
Pesticides	08/01/07	4,4'-DDD	22	SO-37191-072507-RN-SB-1	0.85 J	ug/Kg	J
				SO-37191-072707-RN-SB-3	0.55 J	ug/Kg	J
Pesticides	08/01/07	4,4'-DDE	21	SO-37191-072507-RN-SB-1	2.0 J	ug/Kg	J
				SO-37191-072707-RN-SB-3	0.52 J	ug/Kg	J
Pesticides	08/01/07	Aldrin	26	SO-37191-072507-RN-SB-05	0.28 J	ug/Kg	J
				SO-37191-072507-RN-SB-1	2.1 J	ug/Kg	J
Pesticides	08/08/07	Atrazine	35	SO-37191-072507-RN-SB-05	400 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-1	460 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-10	390 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-7	1100 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-8	410 U	ug/Kg	UJ
				SO-37191-072507-RN-SB-9	400 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-11	440 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-12	410 U	ug/Kg	UJ
				SO-37191-072607-RN-SB-15	400 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-17	480 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-27	380 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-20	880 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-2	820 U	ug/Kg	UJ
				SO-37191-072707-RN-SB-3	390 U	ug/Kg	UJ
SO-37191-072707-RN-SB-4	410 U	ug/Kg	UJ				
Pesticides	08/12/07	Atrazine	38	SO-37191-073007-CB-SB18	340 U	ug/Kg	UJ
				SO-37191-073007-CB-SB19	370 U	ug/Kg	UJ
Pesticides	08/01/07	Endosulfan sulfate	18	SO-37191-072507-RN-SB-1	0.77 J	ug/Kg	J

TABLE 5  
 QUALIFIED SAMPLE RESULTS DUE TO OUTLYING CONTINUING CALIBRATION RESULTS  
 GROUNDWATER AND SOIL SAMPLING  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

<i>Parameter</i>	<i>Calibration Date</i>	<i>Compound</i>	<i>%D</i>	<i>Associated Sample ID</i>	<i>Sample Results</i>	<i>Units</i>	<i>Qualifier</i>
Pesticides	08/01/07	gamma-BHC (Lindane)	18	SO-37191-072507-RN-SB-1 SO-37191-072707-RN-SB-3	7.5 0.98 J	ug/Kg ug/Kg	J

## Notes:

%D Percent Difference.

J Estimated.

SVOCs Semi-Volatile Organic Compounds.

U Not detected.

UJ Not detected, estimated reporting limit.

VOCs Volatile Organic Compounds.

**TABLE 6**  
**QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS**  
**GROUNDWATER AND SOIL SAMPLING**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**JULY - AUGUST 2007**

<i>Parameter</i>	<i>Analysis Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Sample Result</i>	<i>Qualified Result</i>
VOCs	08/01/07	Methylene chloride	2.1	SO-37191-072507-RN-SB-05	3.5 J	6.0 U
				SO-37191-072507-RN-SB-1	3.9 J	6.9 U
				SO-37191-072507-RN-SB-10	3.2 J	5.9 U
				SO-37191-072507-RN-SB-9	6.1	6.1 U
				SO-37191-072607-RN-SB-11	3.3 J	6.7 U
				SO-37191-072607-RN-SB-12	4.0 J	6.2 U
				SO-37191-072607-RN-SB-15	3.1 J	6.1 U
				SO-37191-072707-RN-SB-17	4.0 J	7.2 U
				SO-37191-072707-RN-SB-4	3.1 J	6.2 U
				SO-37191-072707-RN-SB-20	5.3 J	6.7 U
				SO-37191-072707-RN-SB-27	2.6 J	5.7 U
				VOCs	08/01/07	Methylene chloride
SO-37191-072607-RN-SB-13	190 J	310 U				
VOCs	08/01/07	Methylene chloride	1.2	SO-37191-072507-RN-SB-8	1.7 J	6.1 U
				SO-37191-072607-RN-SB-14	1.4 J	5.7 U
				SO-37191-072607-RN-SB-16	1.3 J	6.7 U
				SO-37191-072707-RN-SB-3	1.5 J	6.0 U
VOCs	08/02/07	Methylene chloride	1.5	SO-37191-073007-CB-SB18	1.6 J	5.2 U
VOCs	08/03/07	Methylene chloride	100	SO-37191-073007-CB-SB6	380 J	380 U
				SO-37191-073007-CB-SB19	210 J	280 U
Metals	9/7/07-ICB	Beryllium	1.0	WG-37191-082107-RN-001	0.48	4.0 U
				WG-37191-082107-RN-002	0.82	4.0 U
				WG-37191-082107-RN-007	1.2	4.0 U
Metals	08/30/07	Aluminum (Dissolved)	18.4	WG-37191-082107-RN-001	53.3	200 U
				WG-37191-082107-RN-002	65.3	200 U
				WG-37191-082107-RN-007	37.1	200 U
Metals	08/30/07	Beryllium (Dissolved)	0.65	WG-37191-082107-RN-001	0.58	4.0 U
				WG-37191-082107-RN-002	0.60	4.0 U
				WG-37191-082107-RN-007	0.64	4.0 U
Metals	8/30/07	Cadmium	0.33	WG-37191-082107-RN-001	0.71	5.0 U
				WG-37191-082107-RN-002	0.44	5.0 U
Metals	8/30/07	Zinc (Dissolved)	5.6	WG-37191-082107-RN-001	7.8	20.0 U
				WG-37191-082107-RN-002	10.5	20.0 U
				WG-37191-082107-RN-007	16.6	20.0 U
Metals	8/11/07	Beryllium	1.5	SO-37191-072707-RN-SB-3	0.57	0.57 U
Metals	8/11/07	Thallium	0.33	SO-37191-072507-RN-SB-05	0.92	1.2 U
				SO-37191-072507-RN-SB-1	0.65	1.4 U
Metals	07/31/07	Antimony	0.32	SO-37191-072507-RN-SB-1	0.86	1.4 U
Metals	08/02/07	Antimony	0.10	SO-37191-073007-CB-SB18	0.11	1.0 U

TABLE 6  
 QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS  
 GROUNDWATER AND SOIL SAMPLING  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

<i>Parameter</i>	<i>Analysis Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Sample Result</i>	<i>Qualified Result</i>
Metals	07/31/07	Silver	0.066	SO-37191-072507-RN-SB-05	0.069	0.60 U
				SO-37191-072507-RN-SB-1	0.18	0.69 U
				SO-37191-072607-RN-SB-12	0.060	0.62 U

## Notes:

J Estimated.

U Not detected.

VOCs Volatile Organic Compounds.

TABLE 7  
 QUALIFIED SAMPLE DATA DUE TO OUTLYING SURROGATE RECOVERIES  
 GROUNDWATER AND SOIL SAMPLING  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

<i>Parameter</i>	<i>Surrogate</i>	<i>Surrogate Recovery (percent)</i>	<i>Control Limits (percent)</i>	<i>Sample ID</i>	<i>Analytes</i>	<i>Sample Results</i>	<i>Units</i>	<i>Qualifier</i>
SVOCs	2-Fluorobiphenyl	99	34-97	WG-37191-082107-RN-007	his(2-Ethylhexyl)phthalate	2.4 J	ug/L	J
	Nitrobenzene-d5	111	38-97		2-Methylnaphthalene	0.62 J	ug/L	J

Notes:

J Estimated.

SVOCs Semi-Volatile Organic Compounds.

TABLE 8  
 QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERIES  
 GROUNDWATER AND SOIL SAMPLING  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

Parameter	Analyte	Associated Sample ID	MS Recovery (percent)	MSD Recovery (percent)	RPD	Control Limits		Sample Result	Units	Qualifier
						Recovery (percent)	RPD (percent)			
Metals	Aluminum	WG-37191-082107-RN-001	183	168	9	75-125	30	5110	ug/L	J
		WG-37191-082107-RN-002						4190	ug/L	J
		WG-37191-082107-RN-007						8250	ug/L	J
Pesticides	4,4'-DDT	SO-37191-072507-RN-SB-1	MI	MI	-	70-130	20	1.7 J	ug/kg	J
General Chemistry	Cyanide (total)	SO-37191-072507-RN-SB-1	131	130	1	75-125	20	0.29	mg/kg	J
		SO-37191-072507-RN-SB-8						0.23	mg/kg	J
VOCs	Trichloroethene	SO-37191-072707-RN-SB-17	28	127	128	46-141	20	140	ug/kg	J

Notes:

- Not applicable.
- J Estimated.
- MI Matrix interference. Recoveries were not calculated.
- MS Matrix Spike.
- MSD Matrix Spike Duplicate.
- RPD Relative Percent Difference.
- VOCs Volatile Organic Compounds.



TABLE 9  
 QUALIFIED SAMPLE RESULTS DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS  
 GROUNDWATER AND SOIL SAMPLING  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

<i>Parameter</i>	<i>Analyte</i>	<i>Original Sample ID</i>	<i>Original Result</i>	<i>Duplicate Sample ID</i>	<i>Duplicate Result</i>	<i>RPD</i>	<i>Units</i>	<i>Qualifier <sup>(1)</sup></i>
VOCs	cis-1,2-Dichloroethene	WG-37191-082107-RN-001	2200	WG-37191-082107-RN-002	1100	67	ug/L	J
VOCs	Trichloroethene	WG-37191-082107-RN-001	2000	WG-37191-082107-RN-002	1000	67	ug/L	J
VOCs	cis-1,2-Dichloroethene	WG-37191-082107-RN-004	65000	WG-37191-082107-RN-005	25000	89	ug/L	J
VOCs	Trichloroethene	WG-37191-082107-RN-004	190000	WG-37191-082107-RN-005	26000	152	ug/L	J
Metals	Lead	WG-37191-082107-RN-001	56.8	WG-37191-082107-RN-002	30.0	52	ug/L	J
Metals	Lead	SO-37191-072707-RN-SB-17	155	SO-37191-072707-RN-SB-27	13.4	200	mg/Kg	J

Notes:

<sup>(1)</sup> Qualifier is associated with both original and duplicate result.

J Estimated.

RPD Relative Percent Difference.

VOCs Volatile Organic Compounds.

TABLE 10  
 QUALIFIED SAMPLE RESULTS DUE TO DIFFERENCES IN DUAL COLUMN RESULTS  
 GROUNDWATER AND SOIL SAMPLING  
 FORMER BUFFALO CHINA SITE  
 BUFFALO, NEW YORK  
 JULY - AUGUST 2007

<i>Parameter</i>	<i>Compound</i>	<i>Associated Sample ID</i>	<i>%D</i>	<i>Sample Results</i>		<i>Units</i>	<i>Reported Results</i>
				<i>Column 1</i>	<i>Column 2</i>		
Pesticides	delta-BHC	WG-37191-082107-RN-007	131	0.081	0.017 J	ug/L	0.081 U
	Endrin aldehyde	WG-37191-082107-RN-007	82	0.036 J	0.015 J	ug/L	0.051 U

Notes:

- %D Percent Difference.
- BHC Benzene Hexachloride.
- J Estimated.
- U Not detected.



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## MEMORANDUM

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TO: Chris Barton

REF. NO.: 037191

FROM: Kathleen Willy/bjw/3 *KW*

DATE: January 25, 2010

E-Mail and Hard Copy if Requested

RE: **Data Usability Summary Report (DUSR)  
Soil Vapor Intrusion Investigation  
Former Buffalo China Site  
Buffalo, New York**

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### INTRODUCTION

The following details a quality assessment and validation of the analytical data resulting from the December 2009 collection of nine soil vapor air samples, from the Former Buffalo China Site in Buffalo, New York. The sample summary detailing sample identification, sample location, quality control (QC) samples and analytical parameters is presented in Table 1. Sample analysis was completed at TestAmerica Laboratories (TA), in Knoxville, Tennessee, in accordance with the methodologies presented in Table 2.

This DUSR has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation "Draft DER-10, Technical Guidance for Site Investigation and Remediation, Appendix 2B-Guidance for the Development of Data Usability Summary Reports," December 2002.

Samples were collected in accordance with the Site-Specific Work Plan (Conestoga-Rovers & Associates [CRA], February 2008), the New York State Department of Health's (NYSDOH's) Final document, "Guidance for Evaluating Soil Vapor Intrusion in the State of New York," October 2006 (SVI Guidance), and DER-10.

A total of 12 soil vapor samples including three field duplicates were collected from three residential properties and one former school building during the November 2009 sampling event. Those samples included indoor air and sub-slab samples collected from 82 Harrison Street (the former school building), 103 Harrison Street, 127 Harrison Street, and 138 Harrison Street. In addition, ambient upwind vapor sample canisters were setup at the southwest corner of the property at 82 Harrison Street (wind direction was from the southwest). A helium blanket was used at each sub-slab sample location to evaluate system leaks.

**ANALYTICAL METHODOLOGY AND DATA VALIDATION**

The QC criteria used to assess the data were established by the methods and with the following guidance document:

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

This Guideline is referred to as "Guidelines" in this memorandum.

The data review included evaluation of the data package, holding times, surrogate recoveries, method blanks, blank spike recoveries, and lab/field duplicates.

Qualifications applied to the analytical results based on the data validation include "J" (estimated concentration) and "UJ" (estimated quantitation limit). The validated analytical results are presented in Tables 3A and 3B.

**QA/QC REVIEW****DELIVERABLES**

The data package was complete as requested. The data package was a modified Category B deliverable including CLP like forms but no raw data.

**HOLDING TIMES**

Based on the methods, all required holding times were met

**BLANKS**

Method blanks were analyzed on a daily basis. Methylene chloride and 1,1,1-trichloroethane were present at low concentrations. Samples with similar concentrations were qualified as non-detected. A summary of the qualified results is presented in Table 4.

**SURROGATE SPIKE RECOVERIES**

All samples, blanks, and QC samples were spiked with the proper internal standard and surrogate compounds prior to sample analysis for volatile organic compounds (VOCs). All recoveries met the method criteria, indicating acceptable analytical efficiency.

**BLANK SPIKE (BS) ANALYSES**

BSs were analyzed at the required frequency for all parameters, and all recoveries were acceptable indicating adequate analytical efficiency.

**FIELD DUPLICATE ANALYSES**

Three field duplicates (SS-32191-111809-JDW-003, OA-37191-111809-JDW-002, and IA-37191-111809-JDW-005) were collected and submitted "blind" to the laboratory for analysis. All of the results showed good precision outside of the estimated regions of detection indicating acceptable analytical and sampling precision.

**SAMPLE RESULTS AND REPORTING**

All sample results and quantitation limits were reported in accordance with method requirements and were adjusted for dilution factors.

**OVERALL ASSESSMENT**

According to the work plan, a helium blanket was to be utilized to evaluate the presence of leaks within the sample train. A helium concentration within the sample container greater than 10 percent would indicate a potential leak within the sample train and would potentially disqualify the results from use. A review of the helium concentrations indicate that for the four sub-slab samples where a helium blanket was used, all helium percentages within the samples were less than 10 percent. Therefore, the results were judged acceptable for their intended use.

All deliverables required by the project were present, and the data package was complete. Based on the preceding evaluation, the data were acceptable for use with the qualifications noted.

TABLE 1

SAMPLE AND ANALYSIS SUMMARY  
SOIL VAPOR INTRUSION INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
DECEMBER 2009

Sample I.D.	Location I.D.	Matrix	<u>Start Time</u> <u>End Time</u>		Date (mm/dd/yy)	<u>Analysis/Parameters</u>		Comment
						TCL VOCs	Helium	
SS-37191-111809-JDW-001	103 Harrison	Air	10:49	10:49	11/18/09	X	X	
IA-37191-111809-JDW-001	103 Harrison	Air	10:50	10:50	11/18/09	X		
SS-37191-111809-JDW-002	82 Harrison	Air	12:32	12:32	11/18/09	X	X	
SS-37191-111809-JDW-003	82 Harrison	Air	12:32	12:32	11/18/09	X	X	Field duplicate of sample SS-37191-111809-JDW-002
IA-37191-111809-JDW-002	82 Harrison	Air	12:33	12:33	11/18/09	X		
OA-37191-111809-JDW-001	Up Wind	Air	13:06	13:06	11/18/09	X		
OA-37191-111809-JDW-002	Up Wind	Air	13:06	13:06	11/18/09	X		Field duplicate of sample OA-37191-111809-JDW-001
SS-37191-111809-JDW-004	138 Harrison	Air	14:39	14:39	11/18/09	X	X	
IA-37191-111809-JDW-003	138 Harrison	Air	14:39	14:39	11/18/09	X		
SS-37191-111809-JDW-005	127 Harrison	Air	16:12	16:12	11/18/09	X	X	
IA-37191-111809-JDW-004	127 Harrison	Air	16:13	16:13	11/18/09	X		
IA-37191-111809-JDW-005	127 Harrison	Air	16:13	16:13	11/18/09	X		Field duplicate of sample IA-37191-111809-JDW-004

## Notes:

TCL - Target Compound List.

VOCs - Volatile Organic Compounds.

TABLE 2

SUMMARY OF ANALYTICAL METHODS  
SOIL VAPOR INTRUSION INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
DECEMBER 2009

<i>Parameter</i>	<i>Method</i>
TCL VOCs	EPA-2 TO-15 <sup>(1)</sup>
Helium	ASTM D1946 MOD <sup>(2)</sup>

## Notes:

- <sup>1</sup> "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air" EPA-625/R-96/010b, January 1999.
- <sup>2</sup> Annual Book of ASTM Standards.
- TCL Target Compound List.
- VOCs Volatile Organic Compounds.

TABLE 3A

ANALYTICAL RESULTS SUMMARY  
SOIL VAPOR INTRUSION INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
DECEMBER 2009

	<i>Location ID:</i>	<i>82 Harrison</i>	<i>82 Harrison</i>	<i>82 Harrison</i>	<i>103 Harrison</i>
	<i>Sample Name:</i>	<i>IA-37191-111809-JDW-002</i>	<i>SS-37191-111809-JDW-002</i>	<i>SS-37191-111809-JDW-003</i>	<i>IA-37191-111809-JDW-001</i>
	<i>Sample Date:</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>
<i>Parameters</i>	<i>Units</i>			<i>Duplicate</i>	
<i>Volatile Organic Compounds</i>					
1,1,1-Trichloroethane	ppbv	0.080 U	0.16	0.16	0.080 U
1,1,2,2-Tetrachloroethane	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
1,1,2-Trichloroethane	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
1,1-Dichloroethane	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
1,1-Dichloroethene	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
1,2,4-Trichlorobenzene	ppbv	0.40 U	0.40 U	0.40 U	0.40 U
1,2,4-Trimethylbenzene	ppbv	0.25	0.23	0.62	1.9
1,2-Dibromoethane (Ethylene Dibromide)	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
1,2-Dichlorobenzene	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
1,2-Dichloroethane	ppbv	0.080 U	0.080 U	0.080 U	0.084
1,2-Dichloropropane	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
1,2-Dichlorotetrafluoroethane (CFC 114)	ppbv	0.018 J	0.015 J	0.014 J	0.016 J
1,3,5-Trimethylbenzene	ppbv	0.079 J	0.066 J	0.19	0.73
1,3-Dichlorobenzene	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
1,4-Dichlorobenzene	ppbv	0.052 J	0.080 U	0.080 U	0.070 J
1,4-Dioxane	ppbv	0.20 U	0.20 U	0.20 U	0.20 U
2,2,4-Trimethylpentane	ppbv	0.15 J	0.019 J	0.039 J	0.15 J
2-Butanone (Methyl Ethyl Ketone)	ppbv	0.98	0.69	0.53	6.2
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ppbv	0.16 J	0.064 J	0.060 J	0.49
Benzene	ppbv	0.39	0.13	0.13	0.57
Benzyl Chloride	ppbv	0.16 U	0.16 U	0.16 U	0.16 U
Bromodichloromethane	ppbv	0.020 J	0.080 U	0.080 U	0.23
Bromoform	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
Bromomethane (Methyl Bromide)	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
Carbon tetrachloride	ppbv	0.076 J	0.030 J	0.030 J	0.078 J
Chlorobenzene	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
Chloroethane	ppbv	0.018 J	0.080 U	0.080 U	0.080 U
Chloroform (Trichloromethane)	ppbv	0.065 J	0.027 J	0.026 J	0.85
Chloromethane (Methyl Chloride)	ppbv	0.43	0.073 J	0.070 J	0.70
cis-1,2-Dichloroethene	ppbv	0.080 U	0.087	0.080 U	0.57
cis-1,3-Dichloropropene	ppbv	0.080 U	0.080 U	0.080 U	0.080 U



TABLE 3A

**ANALYTICAL RESULTS SUMMARY  
SOIL VAPOR INTRUSION INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
DECEMBER 2009**

	<i>Location ID:</i>	<i>82 Harrison</i>	<i>82 Harrison</i>	<i>82 Harrison</i>	<i>103 Harrison</i>
	<i>Sample Name:</i>	<i>IA-37191-111809-JDW-002</i>	<i>SS-37191-111809-JDW-002</i>	<i>SS-37191-111809-JDW-003</i>	<i>IA-37191-111809-JDW-001</i>
	<i>Sample Date:</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>
<i>Parameters</i>	<i>Units</i>			<i>Duplicate</i>	
<i>Volatile Organic Compounds (Cont'd.)</i>					
Cyclohexane	ppbv	0.13 J	0.067 J	0.076 J	1.5
Dibromochloromethane	ppbv	0.080 U	0.080 U	0.080 U	0.058 J
Dichlorodifluoromethane (CFC-12)	ppbv	0.44	0.46	0.44	0.40
Ethylbenzene	ppbv	0.24	0.089	0.24	2.6
Hexachlorobutadiene	ppbv	0.40 U	0.40 U	0.40 U	0.40 U
Hexane	ppbv	0.50	0.22	0.25	0.83
m&p-Xylene	ppbv	0.79	0.37	1.8	8.7
Methyl Tert Butyl Ether	ppbv	0.40 U	0.40 U	0.40 U	0.40 U
Methylene chloride	ppbv	0.56	0.23 U	0.31	42
o-Xylene	ppbv	0.28	0.15	0.60	2.4
Styrene	ppbv	0.28	0.023 J	0.026 J	0.38
Tert-Butyl Alcohol	ppbv	0.060 J	0.042 J	0.058 J	0.23 J
Tetrachloroethene	ppbv	0.073 J	0.14	0.074 J	0.13
Toluene	ppbv	1.4	0.40	0.72	6.3
trans-1,2-Dichloroethene	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
trans-1,3-Dichloropropene	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
Trichloroethene	ppbv	0.077	0.33	0.055	2.7
Trichlorofluoromethane (CFC-11)	ppbv	6.5	1.9	1.8	0.92
Trifluorotrchloroethane (Freon 113)	ppbv	0.076 J	0.066 J	0.063 J	0.089
Vinyl chloride	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
Helium	%	--	0.51	0.52	--

TABLE 3A

**ANALYTICAL RESULTS SUMMARY  
SOIL VAPOR INTRUSION INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
DECEMBER 2009**

	<i>Location ID:</i>	103 Harrison	127 Harrison Front	127 Harrison Front	127 Harrison Front
	<i>Sample Name:</i>	SS-37191-111809-JDW-001	IA-37191-111809-JDW-004	IA-37191-111809-JDW-005	SS-37191-111809-JDW-005
	<i>Sample Date:</i>	11/19/2009	11/19/2009	11/19/2009	11/19/2009
<i>Parameters</i>	<i>Units</i>			<i>Duplicate</i>	
<i>Volatile Organic Compounds</i>					
1,1,1-Trichloroethane	ppbv	0.080 U	0.18	0.18	80 U
1,1,2,2-Tetrachloroethane	ppbv	0.080 U	0.080 U	0.080 U	80 U
1,1,2-Trichloroethane	ppbv	0.080 U	0.080 U	0.080 U	80 U
1,1-Dichloroethane	ppbv	0.080 U	0.080 U	0.080 U	80 U
1,1-Dichloroethene	ppbv	0.080 U	0.075 J	0.072 J	70 J
1,2,4-Trichlorobenzene	ppbv	0.40 U	0.40 U	0.40 U	400 U
1,2,4-Trimethylbenzene	ppbv	0.19	1.7	0.74	80 U
1,2-Dibromoethane (Ethylene Dibromide)	ppbv	0.080 U	0.080 U	0.080 U	80 U
1,2-Dichlorobenzene	ppbv	0.080 U	0.080 U	0.080 U	80 U
1,2-Dichloroethane	ppbv	0.080 U	0.080 U	0.080 U	80 U
1,2-Dichloropropane	ppbv	0.080 U	0.080 U	0.080 U	80 U
1,2-Dichlorotetrafluoroethane (CFC 114)	ppbv	0.080 U	0.080 U	0.080 U	80 U
1,3,5-Trimethylbenzene	ppbv	0.069 J	0.59	0.32	80 U
1,3-Dichlorobenzene	ppbv	0.080 U	0.080 U	0.080 U	80 U
1,4-Dichlorobenzene	ppbv	0.080 U	0.033 J	0.080 U	80 U
1,4-Dioxane	ppbv	0.20 U	0.20 U	0.20 U	200 U
2,2,4-Trimethylpentane	ppbv	0.20 U	0.20	0.21	200 U
2-Butanone (Methyl Ethyl Ketone)	ppbv	0.96	1.1	1.5	320 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ppbv	0.063 J	0.19 J	0.22	200 U
Benzene	ppbv	0.12	1.1	1.1	80 U
Benzyl Chloride	ppbv	0.16 U	0.16 U	0.16 U	160 U
Bromodichloromethane	ppbv	0.080 U	0.080 U	0.080 U	80 U
Bromoform	ppbv	0.080 U	0.080 U	0.080 U	80 U
Bromomethane (Methyl Bromide)	ppbv	0.080 U	0.080 U	0.080 U	80 U
Carbon tetrachloride	ppbv	0.049 J	0.075 J	0.075 J	80 U
Chlorobenzene	ppbv	0.080 U	0.080 U	0.080 U	80 U
Chloroethane	ppbv	0.080 U	0.080 U	0.080 U	80 U
Chloroform (Trichloromethane)	ppbv	0.060 J	0.077 J	0.084	80 U
Chloromethane (Methyl Chloride)	ppbv	0.13 J	0.69	0.68	200 U
cis-1,2-Dichloroethene	ppbv	0.080 U	14	14	14000
cis-1,3-Dichloropropene	ppbv	0.080 U	0.080 U	0.080 U	80 U

**TABLE 3A**

**ANALYTICAL RESULTS SUMMARY**  
**SOIL VAPOR INTRUSION INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**DECEMBER 2009**

	<i>Location ID:</i>	<i>103 Harrison</i>	<i>127 Harrison Front</i>	<i>127 Harrison Front</i>	<i>127 Harrison Front</i>
	<i>Sample Name:</i>	<i>SS-37191-111809-JDW-001</i>	<i>IA-37191-111809-JDW-004</i>	<i>IA-37191-111809-JDW-005</i>	<i>SS-37191-111809-JDW-005</i>
	<i>Sample Date:</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>
<i>Parameters</i>	<i>Units</i>			<i>Duplicate</i>	
<i>Volatile Organic Compounds (Cont'd.)</i>					
Cyclohexane	ppbv	0.28	0.36	0.25	200 U
Dibromochloromethane	ppbv	0.080 U	0.080 U	0.080 U	80 U
Dichlorodifluoromethane (CFC-12)	ppbv	0.25	0.94	0.95	80 U
Ethylbenzene	ppbv	0.14	0.55	0.53	80 U
Hexachlorobutadiene	ppbv	0.40 U	0.40 U	0.40 U	400 U
Hexane	ppbv	0.25	1.2	1.1	23 J
m&p-Xylene	ppbv	0.50	2.0	1.9	80 U
Methyl Tert Butyl Ether	ppbv	0.40 U	0.40 U	0.40 U	400 U
Methylene chloride	ppbv	0.36 U	0.99	0.84	120 J
o-Xylene	ppbv	0.17	0.83	0.74	80 U
Styrene	ppbv	0.044 J	0.46	0.36	80 U
Tert-Butyl Alcohol	ppbv	0.074 J	0.069 J	0.11 J	320 U
Tetrachloroethene	ppbv	0.053 J	0.45	0.52	120
Toluene	ppbv	0.59	2.9	3.0	80 U
trans-1,2-Dichloroethene	ppbv	0.080 U	0.26	0.25	250
trans-1,3-Dichloropropene	ppbv	0.080 U	0.080 U	0.080 U	80 U
Trichloroethene	ppbv	0.031 J	15	14	14000
Trichlorofluoromethane (CFC-11)	ppbv	0.80	0.48	0.47	80 U
Trifluorotrchloroethane (Freon 113)	ppbv	0.078 J	0.14	0.14	80 U
Vinyl chloride	ppbv	0.080 U	0.080 U	0.080 U	80 U
Helium	%	0.24 U	--	--	0.72

**TABLE 3A**  
**ANALYTICAL RESULTS SUMMARY**  
**SOIL VAPOR INTRUSION INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**DECEMBER 2009**

Parameters	Units	Location ID:	138 Harrison	138 Harrison	Up Wind	Up Wind
		Sample Name:	IA-37191-111809-JDW-003	SS-37191-111809-JDW-004	OA-37191-111809-JDW-001	OA-37191-111809-JDW-002
		Sample Date:	11/19/2009	11/19/2009	11/19/2009	11/19/2009 Duplicate
<b>Volatile Organic Compounds</b>						
1,1,1-Trichloroethane	ppbv		0.080 U	0.080 U	0.080 U	0.080 U
1,1,2,2-Tetrachloroethane	ppbv		0.080 U	0.080 U	0.080 U	0.080 U
1,1,2-Trichloroethane	ppbv		0.088	0.080 U	0.080 U	0.080 U
1,1-Dichloroethane	ppbv		0.062 J	0.080 U	0.080 U	0.080 U
1,1-Dichloroethene	ppbv		0.080 U	0.080 U	0.080 U	0.080 U
1,2,4-Trichlorobenzene	ppbv		0.40 U	0.40 U	0.40 U	0.40 U
1,2,4-Trimethylbenzene	ppbv		0.15	0.037 J	0.088	0.39
1,2-Dibromoethane (Ethylene Dibromide)	ppbv		0.080 U	0.080 U	0.080 U	0.080 U
1,2-Dichlorobenzene	ppbv		0.080 U	0.080 U	0.080 U	0.080 U
1,2-Dichloroethane	ppbv		0.88	0.080 U	0.080 U	0.080 U
1,2-Dichloropropane	ppbv		0.080 U	0.080 U	0.080 U	0.080 U
1,2-Dichlorotetrafluoroethane (CFC 114)	ppbv		0.080 U	0.080 U	0.080 U	0.080 U
1,3,5-Trimethylbenzene	ppbv		0.048 J	0.080 U	0.032 J	0.12
1,3-Dichlorobenzene	ppbv		0.080 U	0.080 U	0.080 U	0.080 U
1,4-Dichlorobenzene	ppbv		0.080 U	0.029 J	0.080 U	0.080 U
1,4-Dioxane	ppbv		0.20 U	0.20 U	0.20 U	0.20 U
2,2,4-Trimethylpentane	ppbv		0.11 J	0.20 U	0.24	0.21
2-Butanone (Methyl Ethyl Ketone)	ppbv		1.9	0.64	1.0	0.91
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ppbv		0.17 J	0.044 J	0.077 J	0.063 J
Benzene	ppbv		0.56	0.12	0.63	0.59
Benzyl Chloride	ppbv		0.16 U	0.16 U	0.16 U	0.16 U
Bromodichloromethane	ppbv		0.047 J	0.10	0.080 U	0.080 U
Bromoform	ppbv		0.080 U	0.080 U	0.080 U	0.080 U
Bromomethane (Methyl Bromide)	ppbv		0.080 U	0.080 U	0.080 U	0.080 U
Carbon tetrachloride	ppbv		0.074 J	0.16	0.082	0.058 J
Chlorobenzene	ppbv		0.051 J	0.080 U	0.080 U	0.080 U
Chloroethane	ppbv		0.080 U	0.080 U	0.080 U	0.080 U
Chloroform (Trichloromethane)	ppbv		0.19	0.75	0.023 J	0.020 J
Chloromethane (Methyl Chloride)	ppbv		0.54	0.076 J	0.54	0.56
cis-1,2-Dichloroethene	ppbv		0.029 J	0.080 U	0.080 U	0.080 U
cis-1,3-Dichloropropene	ppbv		0.080 U	0.080 U	0.080 U	0.080 U

**TABLE 3A**  
**ANALYTICAL RESULTS SUMMARY**  
**SOIL VAPOR INTRUSION INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**DECEMBER 2009**

	<i>Location ID:</i>	<i>138 Harrison</i>	<i>138 Harrison</i>	<i>Up Wind</i>	<i>Up Wind</i>
	<i>Sample Name:</i>	<i>IA-37191-111809-JDW-003</i>	<i>SS-37191-111809-JDW-004</i>	<i>OA-37191-111809-JDW-001</i>	<i>OA-37191-111809-JDW-002</i>
	<i>Sample Date:</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>
					<i>Duplicate</i>
<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds (Cont'd.)</i>					
Cyclohexane	ppbv	0.14 J	0.20 U	0.19 J	0.18 J
Dibromochloromethane	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
Dichlorodifluoromethane (CFC-12)	ppbv	0.45	0.33	0.43	0.44
Ethylbenzene	ppbv	0.24	0.041 J	0.27	0.28
Hexachlorobutadiene	ppbv	0.40 U	0.40 U	0.40 U	0.40 U
Hexane	ppbv	0.72	0.20	0.67	0.62
m&p-Xylene	ppbv	0.73	0.13	0.84	0.99
Methyl Tert Butyl Ether	ppbv	0.40 U	0.40 U	0.40 U	0.40 U
Methylene chloride	ppbv	1.0	0.39	0.76	0.50
o-Xylene	ppbv	0.25	0.050 J	0.28	0.38
Styrene	ppbv	0.59	0.028 J	0.59	0.96
Tert-Butyl Alcohol	ppbv	0.11 J	0.12 J	0.070 J	0.048 J
Tetrachloroethene	ppbv	0.075 J	0.12	0.13	0.12
Toluene	ppbv	1.5	0.30	1.9	1.7
trans-1,2-Dichloroethene	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
trans-1,3-Dichloropropene	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
Trichloroethene	ppbv	0.072	0.032 J	0.076	0.062
Trichlorofluoromethane (CFC-11)	ppbv	0.25	0.23	0.26	0.23
Trifluorotrchloroethane (Freon 113)	ppbv	0.19	0.099	0.14	0.14
Vinyl chloride	ppbv	0.080 U	0.080 U	0.080 U	0.080 U
Helium	%	--	0.59	--	--

Notes:

J - Estimated.

U - Not detected.

TABLE 3B  
ANALYTICAL RESULTS SUMMARY  
SOIL VAPOR INTRUSION INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
DECEMBER 2009

Parameters	Units	Location ID:	82 Harrison	82 Harrison	82 Harrison	103 Harrison
		Sample Name:	IA-37191-111809-JDW-002	SS-37191-111809-JDW-002	SS-37191-111809-JDW-003	IA-37191-111809-JDW-001
		Sample Date:	11/19/2009	11/19/2009	11/19/2009	11/19/2009
					Duplicate	
<i>Volatile Organic Compounds</i>						
1,1,1-Trichloroethane	µg/ m3		0.44 U	0.90	0.85	0.44 U
1,1,1,2-Tetrachloroethane	µg/ m3		0.55 U	0.55 U	0.55 U	0.55 U
1,1,2-Trichloroethane	µg/ m3		0.44 U	0.44 U	0.44 U	0.44 U
1,1-Dichloroethane	µg/ m3		0.32 U	0.32 U	0.32 U	0.32 U
1,1-Dichloroethene	µg/ m3		0.32 U	0.32 U	0.32 U	0.32 U
1,2,4-Trichlorobenzene	µg/ m3		3.0 U	3.0 U	3.0 U	3.0 U
1,2,4-Trimethylbenzene	µg/ m3		1.2	1.1	3.1	9.4
1,2-Dibromoethane (Ethylene Dibromide)	µg/ m3		0.61 U	0.61 U	0.61 U	0.61 U
1,2-Dichlorobenzene	µg/ m3		0.48 U	0.48 U	0.48 U	0.48 U
1,2-Dichloroethane	µg/ m3		0.32 U	0.32 U	0.32 U	0.34
1,2-Dichloropropane	µg/ m3		0.37 U	0.37 U	0.37 U	0.37 U
1,2-Dichlorotetrafluoroethane (CFC 114)	µg/ m3		0.12 J	0.10 J	0.098 J	0.11 J
1,3,5-Trimethylbenzene	µg/ m3		0.39 J	0.32 J	0.92	3.6
1,3-Dichlorobenzene	µg/ m3		0.48 U	0.48 U	0.48 U	0.48 U
1,4-Dichlorobenzene	µg/ m3		0.31 J	0.48 U	0.48 U	0.42 J
1,4-Dioxane	µg/ m3		0.72 U	0.72 U	0.72 U	0.72 U
2,2,4-Trimethylpentane	µg/ m3		0.69 J	0.088 J	0.18 J	0.70 J
2-Butanone (Methyl Ethyl Ketone)	µg/ m3		2.9	2.0	1.6	18
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/ m3		0.68 J	0.26 J	0.24 J	2.0
Benzene	µg/ m3		1.3	0.41	0.40	1.8
Benzyl Chloride	µg/ m3		0.83 U	0.83 U	0.83 U	0.83 U
Bromodichloromethane	µg/ m3		0.13 J	0.54 U	0.54 U	1.5
Bromoform	µg/ m3		0.83 U	0.83 U	0.83 U	0.83 U
Bromomethane (Methyl Bromide)	µg/ m3		0.31 U	0.31 U	0.31 U	0.31 U
Carbon tetrachloride	µg/ m3		0.48 J	0.19 J	0.19 J	0.49 J
Chlorobenzene	µg/ m3		0.37 U	0.37 U	0.37 U	0.37 U
Chloroethane	µg/ m3		0.049 J	0.21 U	0.21 U	0.21 U
Chloroform (Trichloromethane)	µg/ m3		0.32 J	0.13 J	0.13 J	4.1
Chloromethane (Methyl Chloride)	µg/ m3		0.88	0.15 J	0.14 J	1.4
cis-1,2-Dichloroethene	µg/ m3		0.32 U	0.35	0.32 U	2.3
cis-1,3-Dichloropropene	µg/ m3		0.36 U	0.36 U	0.36 U	0.36 U

**TABLE 3B**  
**ANALYTICAL RESULTS SUMMARY**  
**SOIL VAPOR INTRUSION INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**DECEMBER 2009**

	<i>Location ID:</i>	<i>82 Harrison</i>	<i>82 Harrison</i>	<i>82 Harrison</i>	<i>103 Harrison</i>
	<i>Sample Name:</i>	<i>IA-37191-111809-JDW-002</i>	<i>SS-37191-111809-JDW-002</i>	<i>SS-37191-111809-JDW-003</i>	<i>IA-37191-111809-JDW-001</i>
	<i>Sample Date:</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>
<i>Parameters</i>	<i>Units</i>			<i>Duplicate</i>	
<i>Volatile Organic Compounds (Cont'd.)</i>					
Cyclohexane	µg/ m3	0.44 J	0.23 J	0.26 J	5.0
Dibromochloromethane	µg/ m3	0.68 U	0.68 U	0.68 U	0.49 J
Dichlorodifluoromethane (CFC-12)	µg/ m3	2.2	2.3	2.2	2.0
Ethylbenzene	µg/ m3	1.0	0.38	1.1	11
Hexachlorobutadiene	µg/ m3	4.3 U	4.3 U	4.3 U	4.3 U
Hexane	µg/ m3	1.8	0.78	0.88	2.9
m&p-Xylene	µg/ m3	3.4	1.6	7.8	38
Methyl Tert Butyl Ether	µg/ m3	1.4 U	1.4 U	1.4 U	1.4 U
Methylene chloride	µg/ m3	2.0	0.79 U	1.1	150
o-Xylene	µg/ m3	1.2	0.64	2.6	11
Styrene	µg/ m3	1.2	0.100 J	0.11 J	1.6
Tert-Butyl Alcohol	µg/ m3	0.18 J	0.13 J	0.18 J	0.71 J
Tetrachloroethene	µg/ m3	0.49 J	0.97	0.50 J	0.87
Toluene	µg/ m3	5.1	1.5	2.7	24
trans-1,2-Dichloroethene	µg/ m3	0.32 U	0.32 U	0.32 U	0.32 U
trans-1,3-Dichloropropene	µg/ m3	0.36 U	0.36 U	0.36 U	0.36 U
Trichloroethene	µg/ m3	0.41	1.8	0.29	15
Trichlorofluoromethane (CFC-11)	µg/ m3	36	11	10	5.2
Trifluorotrichloroethane (Freon 113)	µg/ m3	0.59 J	0.51 J	0.49 J	0.68
Vinyl chloride	µg/ m3	0.20 U	0.20 U	0.20 U	0.20 U
Helium	µg/ m3	--	0.51	0.52	--

**TABLE 3B**  
**ANALYTICAL RESULTS SUMMARY**  
**SOIL VAPOR INTRUSION INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**DECEMBER 2009**

	<i>Location ID:</i>	<i>103 Harrison</i>	<i>127 Harrison Front</i>	<i>127 Harrison Front</i>	<i>127 Harrison Front</i>
	<i>Sample Name:</i>	<i>SS-37191-111809-JDW-001</i>	<i>1A-37191-111809-JDW-004</i>	<i>1A-37191-111809-JDW-005</i>	<i>SS-37191-111809-JDW-005</i>
	<i>Sample Date:</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>
<i>Parameters</i>	<i>Units</i>			<i>Duplicate</i>	
<i>Volatile Organic Compounds</i>					
1,1,1-Trichloroethane	µg/ m3	0.44 U	0.96	0.96	440 U
1,1,2,2-Tetrachloroethane	µg/ m3	0.55 U	0.55 U	0.55 U	550 U
1,1,2-Trichloroethane	µg/ m3	0.44 U	0.44 U	0.44 U	440 U
1,1-Dichloroethane	µg/ m3	0.32 U	0.32 U	0.32 U	320 U
1,1-Dichloroethene	µg/ m3	0.32 U	0.30 J	0.28 J	280 J
1,2,4-Trichlorobenzene	µg/ m3	3.0 U	3.0 U	3.0 U	3000 U
1,2,4-Trimethylbenzene	µg/ m3	0.94	8.4	3.7	390 U
1,2-Dibromoethane (Ethylene Dibromide)	µg/ m3	0.61 U	0.61 U	0.61 U	620 U
1,2-Dichlorobenzene	µg/ m3	0.48 U	0.48 U	0.48 U	480 U
1,2-Dichloroethane	µg/ m3	0.32 U	0.32 U	0.32 U	320 U
1,2-Dichloropropane	µg/ m3	0.37 U	0.37 U	0.37 U	370 U
1,2-Dichlorotetrafluoroethane (CFC 114)	µg/ m3	0.56 U	0.56 U	0.56 U	560 U
1,3,5-Trimethylbenzene	µg/ m3	0.34 J	2.9	1.6	390 U
1,3-Dichlorobenzene	µg/ m3	0.48 U	0.48 U	0.48 U	480 U
1,4-Dichlorobenzene	µg/ m3	0.48 U	0.20 J	0.48 U	480 U
1,4-Dioxane	µg/ m3	0.72 U	0.72 U	0.72 U	720 U
2,2,4-Trimethylpentane	µg/ m3	0.93 U	0.95	0.99	940 U
2-Butanone (Methyl Ethyl Ketone)	µg/ m3	2.8	3.1	4.5	950 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/ m3	0.26 J	0.77 J	0.90	820 U
Benzene	µg/ m3	0.38	3.6	3.6	260 U
Benzyl Chloride	µg/ m3	0.83 U	0.83 U	0.83 U	830 U
Bromodichloromethane	µg/ m3	0.54 U	0.54 U	0.54 U	540 U
Bromoform	µg/ m3	0.83 U	0.83 U	0.83 U	830 U
Bromomethane (Methyl Bromide)	µg/ m3	0.31 U	0.31 U	0.31 U	310 U
Carbon tetrachloride	µg/ m3	0.31 J	0.47 J	0.47 J	500 U
Chlorobenzene	µg/ m3	0.37 U	0.37 U	0.37 U	370 U
Chloroethane	µg/ m3	0.21 U	0.21 U	0.21 U	210 U
Chloroform (Trichloromethane)	µg/ m3	0.29 J	0.38 J	0.41	390 U
Chloromethane (Methyl Chloride)	µg/ m3	0.27 J	1.4	1.4	410 U
cis-1,2-Dichloroethene	µg/ m3	0.32 U	57	55	54000
cis-1,3-Dichloropropene	µg/ m3	0.36 U	0.36 U	0.36 U	360 U



**TABLE 3B**  
**ANALYTICAL RESULTS SUMMARY**  
**SOIL VAPOR INTRUSION INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**DECEMBER 2009**

	<i>Location ID:</i>	<i>103 Harrison</i>	<i>127 Harrison Front</i>	<i>127 Harrison Front</i>	<i>127 Harrison Front</i>
	<i>Sample Name:</i>	<i>SS-37191-111809-JDW-001</i>	<i>IA-37191-111809-JDW-004</i>	<i>IA-37191-111809-JDW-005</i>	<i>SS-37191-111809-JDW-005</i>
	<i>Sample Date:</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>	<i>11/19/2009</i>
<i>Parameters</i>	<i>Units</i>			<i>Duplicate</i>	
<i>Volatile Organic Compounds (Cont'd.)</i>					
Cyclohexane	µg/m <sup>3</sup>	0.96	1.2	0.86	690 U
Dibromochloromethane	µg/m <sup>3</sup>	0.68 U	0.68 U	0.68 U	680 U
Dichlorodifluoromethane (CFC-12)	µg/m <sup>3</sup>	1.2	4.7	4.7	400 U
Ethylbenzene	µg/m <sup>3</sup>	0.62	2.4	2.3	350 U
Hexachlorobutadiene	µg/m <sup>3</sup>	4.3 U	4.3 U	4.3 U	4300 U
Hexane	µg/m <sup>3</sup>	0.86	4.3	4.0	80 J
m&p-Xylene	µg/m <sup>3</sup>	2.2	8.7	8.1	350 U
Methyl Tert Butyl Ether	µg/m <sup>3</sup>	1.4 U	1.4 U	1.4 U	1400 U
Methylene chloride	µg/m <sup>3</sup>	0.69 U	3.5	2.9	430 J
o-Xylene	µg/m <sup>3</sup>	0.72	3.6	3.2	350 U
Styrene	µg/m <sup>3</sup>	0.19 J	2.0	1.5	340 U
Tert-Butyl Alcohol	µg/m <sup>3</sup>	0.22 J	0.21 J	0.33 J	970 U
Tetrachloroethene	µg/m <sup>3</sup>	0.36 J	3.1	3.5	780
Toluene	µg/m <sup>3</sup>	2.2	11	11	300 U
trans-1,2-Dichloroethene	µg/m <sup>3</sup>	0.32 U	1.0	0.98	1000
trans-1,3-Dichloropropene	µg/m <sup>3</sup>	0.36 U	0.36 U	0.36 U	360 U
Trichloroethene	µg/m <sup>3</sup>	0.17 J	78	77	73000
Trichlorofluoromethane (CFC-11)	µg/m <sup>3</sup>	4.5	2.7	2.7	450 U
Trifluorotrchloroethane (Freon 113)	µg/m <sup>3</sup>	0.60 J	1.1	1.1	610 U
Vinyl chloride	µg/m <sup>3</sup>	0.20 U	0.20 U	0.20 U	200 U
Helium	µg/m <sup>3</sup>	0.24 U	--	--	0.72

**TABLE 3B**  
**ANALYTICAL RESULTS SUMMARY**  
**SOIL VAPOR INTRUSION INVESTIGATION**  
**FORMER BUFFALO CHINA SITE**  
**BUFFALO, NEW YORK**  
**DECEMBER 2009**

	Location ID:	138 Harrison	138 Harrison	Up Wind	Up Wind
	Sample Name:	IA-37191-111809-JDW-003	SS-37191-111809-JDW-004	OA-37191-111809-JDW-001	OA-37191-111809-JDW-002
	Sample Date:	11/19/2009	11/19/2009	11/19/2009	11/19/2009
					Duplicate
Parameters	Units				
<i>Volatile Organic Compounds</i>					
1,1,1-Trichloroethane	µg/m <sup>3</sup>	0.44 U	0.44 U	0.44 U	0.44 U
1,1,2,2-Tetrachloroethane	µg/m <sup>3</sup>	0.55 U	0.55 U	0.55 U	0.55 U
1,1,2-Trichloroethane	µg/m <sup>3</sup>	0.48	0.44 U	0.44 U	0.44 U
1,1-Dichloroethane	µg/m <sup>3</sup>	0.25 J	0.32 U	0.32 U	0.32 U
1,1-Dichloroethene	µg/m <sup>3</sup>	0.32 U	0.32 U	0.32 U	0.32 U
1,2,4-Trichlorobenzene	µg/m <sup>3</sup>	3.0 U	3.0 U	3.0 U	3.0 U
1,2,4-Trimethylbenzene	µg/m <sup>3</sup>	0.73	0.18 J	0.43	1.9
1,2-Dibromoethane (Ethylene Dibromide)	µg/m <sup>3</sup>	0.61 U	0.61 U	0.61 U	0.61 U
1,2-Dichlorobenzene	µg/m <sup>3</sup>	0.48 U	0.48 U	0.48 U	0.48 U
1,2-Dichloroethane	µg/m <sup>3</sup>	3.6	0.32 U	0.32 U	0.32 U
1,2-Dichloropropane	µg/m <sup>3</sup>	0.37 U	0.37 U	0.37 U	0.37 U
1,2-Dichlorotetrafluoroethane (CFC 114)	µg/m <sup>3</sup>	0.56 U	0.56 U	0.56 U	0.56 U
1,3,5-Trimethylbenzene	µg/m <sup>3</sup>	0.23 J	0.39 U	0.16 J	0.60
1,3-Dichlorobenzene	µg/m <sup>3</sup>	0.48 U	0.48 U	0.48 U	0.48 U
1,4-Dichlorobenzene	µg/m <sup>3</sup>	0.48 U	0.17 J	0.48 U	0.48 U
1,4-Dioxane	µg/m <sup>3</sup>	0.72 U	0.72 U	0.72 U	0.72 U
2,2,4-Trimethylpentane	µg/m <sup>3</sup>	0.54 J	0.93 U	1.1	1.00
2-Butanone (Methyl Ethyl Ketone)	µg/m <sup>3</sup>	5.7	1.9	3.0	2.7
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	µg/m <sup>3</sup>	0.70 J	0.18 J	0.32 J	0.26 J
Benzene	µg/m <sup>3</sup>	1.8	0.39	2.0	1.9
Benzyl Chloride	µg/m <sup>3</sup>	0.83 U	0.83 U	0.83 U	0.83 U
Bromodichloromethane	µg/m <sup>3</sup>	0.32 J	0.68	0.54 U	0.54 U
Bromoform	µg/m <sup>3</sup>	0.83 U	0.83 U	0.83 U	0.83 U
Bromomethane (Methyl Bromide)	µg/m <sup>3</sup>	0.31 U	0.31 U	0.31 U	0.31 U
Carbon tetrachloride	µg/m <sup>3</sup>	0.47 J	1.0	0.52	0.36 J
Chlorobenzene	µg/m <sup>3</sup>	0.24 J	0.37 U	0.37 U	0.37 U
Chloroethane	µg/m <sup>3</sup>	0.21 U	0.21 U	0.21 U	0.21 U
Chloroform (Trichloromethane)	µg/m <sup>3</sup>	0.93	3.7	0.11 J	0.099 J
Chloromethane (Methyl Chloride)	µg/m <sup>3</sup>	1.1	0.16 J	1.1	1.2
cis-1,2-Dichloroethene	µg/m <sup>3</sup>	0.11 J	0.32 U	0.32 U	0.32 U
cis-1,3-Dichloropropene	µg/m <sup>3</sup>	0.36 U	0.36 U	0.36 U	0.36 U

TABLE 3B  
ANALYTICAL RESULTS SUMMARY  
SOIL VAPOR INTRUSION INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
DECEMBER 2009

<i>Location ID:</i>	138 Harrison	138 Harrison	<i>Up Wind</i>
<i>Sample Name:</i>	IA-37191-111809-JDW-003	SS-37191-111809-JDW-004	OA-37191-111809-JDW-001
<i>Sample Date:</i>	11/19/2009	11/19/2009	11/19/2009
			<i>Up Wind</i> OA-37191-111809-JDW-002 11/19/2009 <i>Duplicate</i>

<i>Parameters</i>	<i>Units</i>				
<i>Volatile Organic Compounds (Cont'd.)</i>					
Cyclohexane	µg/m3	0.48 J	0.69 U	0.66 J	0.62 J
Dibromochloromethane	µg/m3	0.68 U	0.68 U	0.68 U	0.68 U
Dichlorodifluoromethane (CFC-12)	µg/m3	2.2	1.6	2.1	2.2
Ethylbenzene	µg/m3	1.1	0.18 J	1.2	1.2
Hexachlorobutadiene	µg/m3	4.3 U	4.3 U	4.3 U	4.3 U
Hexane	µg/m3	2.5	0.71	2.4	2.2
m&p-Xylene	µg/m3	3.2	0.58	3.6	4.3
Methyl Tert Butyl Ether	µg/m3	1.4 U	1.4 U	1.4 U	1.4 U
Methylene chloride	µg/m3	3.5	1.3	2.6	1.7
o-Xylene	µg/m3	1.1	0.22 J	1.2	1.6
Styrene	µg/m3	2.5	0.12 J	2.5	4.1
Tert-Butyl Alcohol	µg/m3	0.32 J	0.35 J	0.21 J	0.15 J
Tetrachloroethene	µg/m3	0.51 J	0.80	0.91	0.82
Toluene	µg/m3	5.5	1.1	7.1	6.4
trans-1,2-Dichloroethene	µg/m3	0.32 U	0.32 U	0.32 U	0.32 U
trans-1,3-Dichloropropene	µg/m3	0.36 U	0.36 U	0.36 U	0.36 U
Trichloroethene	µg/m3	0.39	0.17 J	0.41	0.33
Trichlorofluoromethane (CFC-11)	µg/m3	1.4	1.3	1.5	1.3
Trifluorotrchloroethane (Freon 113)	µg/m3	1.4	0.76	1.1	1.1
Vinyl chloride	µg/m3	0.20 U	0.20 U	0.20 U	0.20 U
Helium	µg/m3	--	0.59	--	--

Notes:

J - Estimated.

U - Not detected.

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO ANALYTE CONCENTRATIONS IN THE METHOD BLANKS  
SOIL VAPOR INTRUSION INVESTIGATION  
FORMER BUFFALO CHINA SITE  
BUFFALO, NEW YORK  
DECEMBER 2009

<i>Parameter</i>	<i>Analysis Date</i>	<i>Analyte</i>	<i>Blank Result</i>	<i>Sample ID</i>	<i>Qualified Sample Result</i>	<i>Units</i>
VOCs	11/26/2009	Methylene chloride	0.36J	SS-37191-111809-JDW-001	0.36 U	ppbv
VOCs	11/27/2009	Methylene chloride	0.14J	SS-37191-111809-JDW-002	0.23 U	ppbv

## Notes:

J Estimated.

U Not detected.

VOCs Volatile Organic Compounds.



## MEMORANDUM

TO: File REF. NO.: 37191  
FROM: Dan Smith DATE: 2/4/2010  
C.C.: C. Barton  
RE: Addendum to FWIA for the Former Buffalo China Site

In April 2008, CRA conducted a Fish and Wildlife Impact Assessment (FWIA) for the Former Buffalo China Site, 51 Hayes Place, Buffalo, NY (CRA 2008). Based on soil and groundwater data collected until the end of April, CRA concluded the following:

“The objectives of the FWIA were to identify fish and wildlife resources that presently exist and that existed before contamination introduction on a site, and to provide information for the design of a remedial investigation. Upon review of the Buffalo China Site, CRA has concluded no impact to fish and wildlife on or near the Site due to dense urbanization and lack of natural habitats surrounding the Site. However, to be conservative CRA completed the additional relevant steps of the FWIA. Based on this analysis CRA concludes that the planned remedial actions will not harm fish or wildlife and will result in the removal or isolation of site-related contaminants, thus preventing future off-site migration of site-related contaminants and impacts to natural resources.”

The FWIA was submitted to NYSDEC as part of the Interim Site Investigation Report prepared by CRA dated July 2008. However, some additional samples of surface soil were collected from both on - and off-Site areas and additional sampling of groundwater has also occurred. In the interests of conservatism and completeness, these additional sampling data are screened for potential ecological risks. However, as described in the FWIA, there is effectively no potential for exposure to ecological receptors.

The listings of additional samples are presented in Table 1 for soil and Table 2 for both overburden and bedrock groundwater. The resulting detected chemicals are screened in Tables 3 (soil), Table 4 (overburden groundwater), and Table 5 (bedrock groundwater). For soil, the only compound screened was lead. Ecological Screening Values (ESVs) were obtained from the same sources as before. However, two new compounds, cyclohexane and methyl-cyclohexane, were detected in more recent samples. These compounds did not have ESVs in the sources previously described. Therefore, ESVs for these compounds were based on methods presented in EPA (2008).

As in the original FWIA, lead in soil exceeded the conservative ESV. However, off-site lead concentrations were lower than those measured on-site. As with on-site lead exceedances, however, potential ecological risks at off-site soil locations can be dismissed because of the lack of habitat and exposure. As with the original FWIA, groundwater concentrations of chlorinated solvents and BTEX compounds were also higher than ESVs. Again, however, as discussed in the FWIA, the groundwater plume is far from any surface water. Thus, there is little potential for exposure or ecological risk from these elevated VOC concentrations.

**References:**

CRA April 2008. Fish and Wildlife Impact Assessment for the Former Buffalo China Site.

USEPA, 2008. Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Compendium of Tier 2 Values for Nonionic Organics.

EPA-600-R-02-016. Office of Research and Development. Washington, DC 20460

**TABLE 1**

**LIST OF ADDITIONAL SURFACE SOILS COLLECTED AFTER MAY 2008  
BROWNFIELD CLEANUP SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)**

<i>Address</i>	<i>Sample Location</i>	<i>Sample Date</i>	<i>Depth of Sample</i>
82 Harrison Street	SS-17	8/13/2008	0 - 0.17 ft bgs
82 Harrison Street	SS-17	8/13/2008	0.17 - 0.33 ft bgs
82 Harrison Street	SS-18	8/13/2008	0 - 0.17 ft bgs
82 Harrison Street	SS-18	8/13/2008	0.17 - 0.33 ft bgs
118 Harrison Street	SS-19)	8/13/2008	0 - 0.17 ft bgs
118 Harrison Street	SS-19	8/13/2008	0.17 - 0.33 ft bgs
118 Harrison Street	SS-20	8/13/2008	0 - 0.17 ft bgs
118 Harrison Street	SS-20	8/13/2008	0.17 - 0.33 ft bgs
118 Harrison Street	SS-21	8/13/2008	0 - 0.17 ft bgs
118 Harrison Street	SS-21	8/13/2008	0.17 - 0.33 ft bgs
118 Harrison Street	SS-22	8/13/2008	0 - 0.17 ft bgs
118 Harrison Street	SS-22	8/13/2008	0.17 - 0.33 ft bgs
118 Harrison Street	SS-23	8/13/2008	0 - 0.17 ft bgs
118 Harrison Street	SS-23	8/13/2008	0.17 - 0.33 ft bgs
118 Harrison Street	SS-24	8/13/2008	0 - 0.17 ft bgs
118 Harrison Street	SS-24	8/13/2008	0.17 - 0.33 ft bgs
66 Lester Street	SS-25	8/13/2008	0 - 0.17 ft bgs
66 Lester Street	SS-25	8/13/2008	0.17 - 0.33 ft bgs
66 Lester Street	SS-25	8/13/2008	0 - 0.17 ft bgs
66 Lester Street	SS-25	8/13/2008	0.17 - 0.33 ft bgs
66 Lester Street	SS-25	8/13/2008	0.17 - 0.33 ft bgs

TABLE 2

LIST OF ADDITIONAL GROUNDWATER SAMPLES  
 COLLECTED AFTER MAY 2008  
 BROWNFIELD CLEANUP SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)

<i>Bedrock</i>		
<i>Location</i>	<i>Date</i>	
MW-5A	1/20/2009	
MW-5A	7/22/2009	
MW-5A	7/22/2009	Duplicate
MW-6	8/20/2007	
MW-6A	7/22/2009	
MW-7A	1/21/2009	
MW-7A	7/22/2009	
MW-8	8/20/2007	
MW-9	8/20/2007	
MW-9A	1/19/2009	
MW-9A	7/21/2009	
MW-13A	1/19/2009	
MW-13A	7/22/2009	
MW-14A	1/22/2009	
MW-14A	7/20/2009	
MW-15A	1/23/2009	
MW-15A	7/20/2009	
MW-18A	7/22/2009	
MW-19A	7/20/2009	
MW-20A	7/22/2009	
MW-21A	7/21/2009	
MW-21A	7/21/2009	Duplicate
MW-22	7/20/2009	
MW-22A	7/20/2009	
MW-23A	7/20/2009	
MW-23A	7/20/2009	Duplicate
MW-24A	7/20/2009	
MW-25A	7/20/2009	

<i>Overburden</i>		
<i>Location</i>	<i>Date</i>	
MW-12	1/13/2009	
MW-18	1/13/2009	
MW-18	1/13/2009	Duplicate
MW-4	1/13/2009	
MW-9	1/19/2009	
MW-17	1/20/2009	
MW-5	1/20/2009	
MW-6	1/20/2009	
MW-7	1/21/2009	
MW-10	1/22/2009	
MW-11	1/22/2009	
MW-11	1/22/2009	Duplicate
MW-8	3/5/2009	
MW-10	7/20/2009	
MW-11	7/20/2009	
MW-17	7/20/2009	
MW-19	7/20/2009	
MW-22	7/20/2009	
MW-8	7/21/2009	
MW-9	7/21/2009	
MW-12	7/22/2009	
MW-18	7/22/2009	
MW-20	7/22/2009	
MW-4	7/22/2009	
MW-5	7/22/2009	
MW-6	7/22/2009	
MW-7	7/22/2009	
MW-10	9/19/2008	
MW-11	9/19/2008	



**TABLE 3**

**SCREENING OF LEAD IN ADDITIONAL SURFACE SOILS COLLECTED AFTER MAY 2008  
BROWNFIELD CLEANUP SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)**

Metals	Units	Samples #	FOD	mean detected	max detected	ESV	source 1	mean SQ	max SQ
Lead	mg/kg	19	1	183.7421053	356	11	Eco-SSL	16.703828	32.363636

1. USEPA, 2008. Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Compendium of Tier 2 Values for Nonionic Organics. EPA-600-R-02-016. Office of Research and Development. Washington, DC 20460

TABLE 4

SCREENING OF VOCs IN ADDITIONAL OVERBURDEN GROUNDWATER SAMPLES COLLECTED AFTER MAY 2008  
 BROWNFIELD CLEANUP SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)

Parameter		Samples #	FOD	mean	max detected	ESV	source <sup>1</sup>	mean SQ	max SQ
1,1-Dichloroethene	ug/L	29	7%	0	2	65	EPA Region V	0	0
2-Butanone (Methyl Ethyl Ketone)	ug/L	29	7%	0	4	2200	EPA Region V	0	0
Acetone	ug/L	29	7%	1	12	1700	EPA Region V	0	0
cis-1,2-Dichloroethene	ug/L	29	62%	22141	320000	5500	MDEQ	4	58
Cyclohexane	ug/L	29	3%	0	4	328	EPA 2008	0	0
Methyl cyclohexane	ug/L	29	3%	0	4	264	EPA 2008	0	0
Tetrachloroethene	ug/L	29	7%	2	63	45	EPA Region V	0	1
Toluene	ug/L	29	7%	3311	96000	253	EPA Region V	13	379
trans-1,2-Dichloroethene	ug/L	29	17%	2	29	14000	MDEQ	0	0
Trichloroethene	ug/L	29	76%	34439	560000	47	EPA Region V	733	11915
Vinyl chloride	ug/L	29	7%	1	15	930	EPA Region V	0	0
Xylene (total)	ug/L	29	10%	586	17000	27	EPA Region V	22	630

1. USEPA, 2008. Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Compendium of Tier 2 Values for Nonionic Organics. EPA-600-R-02-016. Office of Research and Development. Washington, DC 20460

TABLE 5

SCREENING OF VOCs IN BEDROCK GROUNDWATER  
 BROWNFIELD CLEANUP SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)

VOCs	Units	Samples #	FOD	mean detected	max detected	ESV	source <sup>1</sup>	mean SQ	max SQ
1,1-Dichloroethane		25	4%	0	1	47	EPA Region V	0.0	0.0
1,1-Dichloroethene		25	8%	2	40	65	EPA Region V	0.0	0.6
1,2-Dichloroethane		25	4%	13	320	910	EPA Region V	0.0	0.4
2-Butanone (Methyl Ethyl Ketone)		25	8%	1	20	2200	EPA Region V	0.0	0.0
4-Methyl-2-Pentanone (Methyl Isobutyl K		25	4%	5	120	170	EPA Region V	0.0	0.7
Acetone		25	20%	17	280	1700	EPA Region V	0.0	0.2
Chloroform (Trichloromethane)		25	4%	0	3	140	EPA Region V	0.0	0.0
cis-1,2-Dichloroethene		25	68%	8969	71000	5500	MDEQ	<b>1.6</b>	<b>12.9</b>
Cyclohexane		25	32%	13	290	328	EPA 2008	0.0	0.9
Ethylbenzene		25	8%	0	3	14	EPA Region V	0.0	0.2
Methyl cyclohexane		25	24%	6	130	264	EPA 2008	0.0	0.5
Methylene chloride		25	12%	13	240	940	EPA Region V	0.0	0.3
Tetrachloroethene		25	12%	2	45	45	EPA Region V	0.0	1.0
Toluene		25	8%	1	24	253	EPA Region V	0.0	0.1
trans-1,2-Dichloroethene		25	28%	18	350	14000	MDEQ	0.0	0.0
Trichloroethene		25	68%	23339	290000	47	EPA Region V	<b>496.6</b>	<b>6170.2</b>
Vinyl chloride		25	28%	65	850	930	EPA Region V	0.1	0.9
Xylene (total)		25	44%	61	1300	27	EPA Region V	<b>2.2</b>	<b>48.1</b>

1. USEPA, 2008. Procedures for the Derivation of Equilibrium Partitioning Sediment Benchmarks (ESBs) for the Protection of Benthic Organisms: Compendium of Tier 2 Values for Nonionic Organics. EPA-600-R-02-016. Office of Research and Development. Washington, DC 20460

APPENDIX H  
FISH AND WILDLIFE IMPACT RECORDS

# **FISH AND WILDLIFE IMPACT ANALYSIS**

**FORMER BUFFALO CHINA SITE  
51 HAYES PLACE  
BUFFALO, NEW YORK**

**APRIL 2008**

**REF. NO. 037191**

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## EXECUTIVE SUMMARY

This report presents a Fish and Wildlife Impact Analysis (FWIA) for the former Buffalo China site (Site) located at 51 Hayes Place, Buffalo, New York. This FWIA follows the requirements as set forth in the *Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites* guidance of the New York State Department of Environmental Conservation (NYSDEC). The objectives of the FWIA were to: identify the fish and wildlife resources that presently exist and that existed before contaminant introduction; provide information necessary for the design of a remedial investigation; determine the impacts of Site-related contaminants on fish and wildlife resources; and evaluate the effects of the remedial alternatives on the productivity and diversity of fish and wild resources.

Conestoga-Rovers & Associates (CRA) found that no fish or wildlife resources are associated with the Site, and there is minimal potential for contaminant migration to the Buffalo River, which is the nearest resource to the Site. Potential remedial actions being considered for the Site would ensure that Site-related contaminants do not reach ecological receptors in the future.

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## 1.0 INTRODUCTION

### 1.1 BACKGROUND AND OBJECTIVES

This report presents a Fish and Wildlife Impact Analysis (FWIA) for the former Buffalo China site (Site) located at 51 Hayes Place, Buffalo, Erie County, New York. The property is currently owned by Niagara Ceramics and is located at 51 Hayes Place, Buffalo, New York, as shown on Figure 1. In March 2004, Buffalo China sold the property to Niagara Ceramics and retained liability for environmental impairment of the Site and adjacent properties impacted by the Site prior to the sale. Buffalo China has entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) to investigate and remediate, as appropriate, potential areas of environmental concern associated with the Site.

Generally, this FWIA follows the requirements as set forth in the *Fish and Wildlife Impact Analysis for Inactive Hazardous Waste Sites* guidance issued by NYSDEC dated October 1994. In accordance with the guidance, the objectives of the FWIA are:

- identify the fish and wildlife resources that presently exist and that existed before contaminant introduction (Step I);
- provide information necessary for the design of a remedial investigation (Step I);
- determine the impacts of Site-related contaminants on fish and wildlife resources (Step II); and
- evaluate the effects of the remedial alternatives on the productivity and diversity of fish and wildlife resources (Step III).

If no resources are associated with the Site or if there is no potential for contaminant migration to the resources, then only Step 1 of the FWIA must be completed with all the necessary information to support these conclusions.

### 1.2 REPORT ORGANIZATION

In addition to the goals and objectives provided in Section 1.1, this Section also provides a general description of the Site and surrounding area.

### **1.3 SITE LOCATION**

The former Buffalo China site (Site) is located at 51 Hayes Place, City of Buffalo, Erie County, New York. Figure 1 shows the location of the Site and a 2-mile radius. The Site comprises approximately 10 acres and is bounded on the north by railroad tracks, on the east by the adjoining Buffalo China Warehouse and other commercial/industrial facilities, and on the south and west by commercial, industrial, and residential properties. Interstate I-190 is located nearby to the south of the Site, while the City of Buffalo School 26 and adjacent playground is located a few hundred feet to the southwest. The nearest body of water is the Buffalo River, located approximately 0.25 mile south and east of the Site.

### **1.4 SITE DESCRIPTION**

A site reconnaissance of the Site was conducted by CRA on April 3, 2008 to document habitat characteristics and identify potential ecological receptors, environmentally sensitive areas, and potentially complete exposure and contaminant migration pathways. Figure 1 shows the location of the Site, and the area within a 2-mile radius of the Site is inscribed. Figure 2 shows the Site and the area within a 0.5-mile radius. Color photographs were taken to document the existing conditions, and are provided in Appendix A.

The Site includes buildings, outdoor storage silos, a railroad spur, roadways, and parking areas. The manufacturing building is a multi-story structure covering approximately 4 acres. The building is connected to the Buffalo China Warehouse to the east. Another smaller building, referred to as the Harrison Street Warehouse, is located in the northwest end of the Site and covers an area of approximately 0.5 acre. The primary access to the Site is from Hayes Place (a street name) through the east side of the Site near the Buffalo China Warehouse. The property has been used for the manufacture of china for the past 100 plus years. During that time period, the manufacturing facility expanded to adjacent industrial properties, which included the Standard Mirror Company and Atlas Wrecking. The Harrison Street Warehouse was once part of the Standard Mirror facility.

Stormwater runoff from the Site is collected in municipal stormwater sewers. Figure 3 shows a drainage map of the Site and the various storm sewer inlets. The City has combined sewers in this location, and stormwater and sanitary wastewater is ultimately conveyed to the City's Bird Island Sewage Treatment Plant. The main sewer line that

serves the Site runs underneath Seneca Street. However, combined sewer overflows (CSOs) occur when the volume of stormwater exceeds the capacity of the sewers. When flows exceed capacity, regulators on the system discharge to surface water. There are numerous CSOs in various locations on the sewer system. Any overflows originating from the Seneca Street sewer will ultimately discharge to the Buffalo River at the Hamburg Street CSO. The Remedial Action Plan (RAP) for the Buffalo River identifies CSOs as a major impact to the River's water quality.

Ecologically, the Site is considered to be an unnatural habitat consisting of manmade structures such as industrial buildings, residences, roadways, railroads, and parking lots. Undisturbed natural habitat is lacking and replaced by manmade habitats dominated by ornamental plant species and early successional and invasive plant species. Mammalian wildlife species inhabiting these areas are those species found in close proximity to human settlements. Avian species consist of the usual bird fauna of cities and towns, as well as occasional seasonal neotropical migrants. Due to the small extent of undisturbed areas on the Site, very few individual animals could be supported by the Site's habitat. Aquatic habitat is lacking from the Site.

## **1.5 SURROUNDING LAND USE**

The Site and surrounding land lie within the Erie-Ontario Lake Plain Province. This is an area with a small degree of relief occupying the Lake Erie plain. The Province was once a glacial lakebed. Soils are primarily a silt loam. Human activities and human modified habitat dominate in the Buffalo City area. Natural habitats are rare, and undisturbed habitats are non-existent.

Table 1 lists and Figure 2 shows each general cover-type within a 0.5-mile radius of the Site and also shows the acreage associated with each cover-type. The land within 0.5 mile of the Site consists of a mixture of urban land uses. There are residential areas with grass yards and shade trees. There are also commercial and industrial areas with impervious surfaces (paved roads, parking lots, and buildings). Urban manmade habitats account for 98 percent of the total 488 acres within the 0.5-mile radius of the Site.

To the immediate north of the Site are active railroad tracks with ruderal grasses and weeds. A narrow row of shrubs and saplings exists on both sides of the tracks. There is a school and grass playground to the southwest of the Site. Further from the Site, there are automobile junkyards to the southwest and a quarry to the northwest. There are

also vacant lots covered with a mixture of grasses, weeds, and bare soil. On either side of I-190, which is south of the Site, there are small grassy areas with a few trees and shrubs. There is also a small open field upland with a scattering of trees north of the Site.

Various small pocket parks exist in the vicinity of the Site. Houghton Park is located over a half mile from the Site to the southeast. The majority of the parks consist of athletic fields; however, there are some small fragmented wooded areas associated with the parks. Table 2 lists area parks and their features.

The nearest body of water to the Site is the Buffalo River. The Buffalo River watershed encompasses 447 square miles. NYSDEC has classified the river as a Class C waterbody, which stipulates that its beneficial uses are fishing with waters suitable for fish propagation and survival. In addition, Class C water quality should be suitable for primary and secondary contact recreation. However, other factors could limit use for these purposes. The Buffalo River in the vicinity of the Site is designated as a navigable channel and is maintained by the U.S. Army Corps of Engineers at a minimum depth of 22 feet. The shoreline is not natural and consists of moorings, bulkheads, pilings, and other structures on the bank. Fish and wildlife habitat is sparse in the lower section of the river, as are beds of emergent and submerged aquatic vegetation. Nearly the entire lower section of the river is located within a 2-mile radius of the Site (see Figure 1). Due to a northern bend in the river, the nearest area of the river is approximately 0.25 mile south of the Site.

The Buffalo River from roughly its confluence with Cazenovia Creek is designated as a Great Lakes Area of Concern (AOC) by the U.S.-Canada Great Lakes Water Quality Agreement. As required for all AOCs, a RAP was developed for the Buffalo River in 1989. The AOC encompasses 6.2 miles and is characterized by a highly urbanized and industrial lower watershed. The Buffalo China Site is located just upstream of the Buffalo River AOC and is not listed as a contributor to contamination in the river (Buffalo Niagara Riverkeeper 2005). The United States Environmental Protection Agency (USEPA) Great Lakes National Program Office (GLNPO) selected Friends of the Buffalo Niagara Rivers (now the Buffalo Niagara Riverkeeper) to coordinate the implementation of the Buffalo River RAP. Remedial activities are ongoing and focus on water quality monitoring, river bottom sediment monitoring and remediation, planning for the remediation of inactive hazardous waste sites, assessment of municipal and industrial wastewater treatment facilities and elimination of CSOs, and planning for the restoration of fish and wildlife habitat.

## 2.0 DESCRIPTION OF FISH AND WILDLIFE RESOURCES

### 2.1 FISH AND WILDLIFE RESOURCES AND COVER-TYPES

The only aquatic habitat in the vicinity of the Site is the Buffalo River. There are six known beneficial use impairments in the Buffalo River AOC. These are restrictions on fish consumption, fish tumors/other deformities, degradation of benthos, restrictions on dredging, degradation of aesthetics, and loss of fish and wildlife habitat. Factors affecting water quality in the Buffalo River AOC include industrial discharges, CSOs, agricultural runoff, inactive hazardous waste sites, stormwater runoff and failing septic systems, and re-suspension of historically contaminated sediments.

Water quality of the Buffalo River within the AOC is affected by low dissolved oxygen concentrations, turbidity, contamination by heavy metals (copper, iron, lead, mercury, and zinc), ammonia, and elevated fecal coliform bacteria (2005 RIBS, Riverkeeper 2005). A water quality investigation conducted in 2005 found no polychlorinated biphenyls (PCBs) or pesticides, one semi-volatile organic compound (SVOC) (bis (2-ethylhexyl) phthalate), and several metals in surface water (NYSDEC 2006). River sediments are contaminated with PCBs, polynuclear aromatic hydrocarbons (PAHs), metals, industrial organic chemicals, and cyanides. Recently deposited sediments were not as contaminated as deeper sediments; however, deep sediments may have been re-suspended during dredging operations.

Ongoing assessments of benthic macroinvertebrates, fish, bird, mammal, reptiles, and amphibian populations are conducted within the AOC. A benthic macroinvertebrate and fish study conducted during 2003-2004 (Irvine et al. 2005) found low fish diversity and dominance of the invertebrate community by pollution tolerant tubificid worms and midge larvae. Fish habitat is degraded due to dredging and shoreline alterations, and there is a fish advisory warning against consumption of carp due to elevated levels of PCBs (Buffalo Niagara Riverkeeper, 2005).

A Palustrine scrub/shrub wetland is shown on the National Wetlands Inventory (NWI) map just north of the Site; however, there is presently a building at that location. There are no other wetlands in the vicinity of the Site. However, there is a riparian area identified as a palustrine forested wetland on the NWI map located on the opposite (south) bank of the river associated with the Seneca Bluffs area.

A small portion of the Seneca Bluffs Area is located within the 0.5-mile radius of the Site on the opposite (south) side of the Buffalo River. Seneca Bluffs is a 15-acre floodplain

designated as palustrine forested wetland on the NWI map. There are several habitats in the area, including palustrine emergent wetland, forested floodplain, upland meadow, eroding bluff, and 2,500 feet of river shoreline. The area was identified as a unique and critical habitat that provided habitat for waterfowl, amphibians, fish, migratory birds, and wading birds. Mature cottonwood and willow trees are present in the area. Seneca Bluffs also serves as a recreational area for residents. The area is also within the Great Lakes migratory bird flyway. However, the Seneca Bluffs have been impacted by human activities. Its vegetation was dominated by invasive and non-native plant species, illegal dumping and litter were common, and off-road vehicles were impacting habitats (Buffalo Niagara Riverkeeper, 2005). The Seneca Bluffs restoration activities have reduced invasive vegetation and planted native plants, and seasonal aquatic habitats were constructed.

A portion of the Tiffit Farm Nature Preserve is located within 2 miles southwest of the Site. This 264-acre preserve is designated a Significant Coastal Fish and Wildlife Habitat. It is one of the largest remaining wetland systems in the Lake Erie coastal region. The preserve wetlands provide habitat for a variety of species, such as waterfowl, shorebirds and migratory birds, muskrats, mink, reptiles, fish, and burrowing crayfish. There are also upland areas that provide habitat for birds, mammals and reptiles, as well as ponds that support warm water fish and amphibians. Several threatened and endangered species also reside on the preserve.

Upland natural habitats are for the most part non-existent within the 0.5-mile radius of the Site. Within the entire half mile area, there is only one upland forested area consisting of approximately 5 acres. This forested lot is surrounded by human activities.

## **2.2 FAUNA EXPECTED WITHIN EACH COVER TYPE AND AQUATIC HABITAT**

Due to the limited natural habitats in the vicinity of the Site, fauna are expected to be restricted to those species well adapted to an urban setting, such as resident birds of urban areas and small rodents such as gray squirrels and house mice. Studies conducted on the Buffalo River show that there is low fish and invertebrate diversities in the river due to sediment and water column contamination and habitat degradation (Irvine et al. 2005; Buffalo Riverkeeper 2005).

Two New York State threatened bird species, the least bittern (*Ixobrychus exilis*) and pied billed grebe (*Podilymbus podiceps*), were reported by the New York Natural Heritage

Program as occurring within 2 miles of the Site. Neither of these species is expected to occur on or near the Site because the appropriate habitats (freshwater marshes, ponds, and lakes) are absent.

The unlisted but imperiled, devil crayfish (*Cambarus diogenes*), has also been found in a pond 2 miles from the Site at the Tiff Farm Nature Preserve. A special concern fish, the black redhorse (*Moxostoma duquesnei*), has been observed upstream of the Buffalo River AOC. Two unlisted mussels, the fragile papershell (*Leptodea fragilis*) and the pink heelsplitter (*Potamilus alatus*), have also been observed upstream of the AOC. None of these aquatic species are expected to occur within the vicinity of the Site. A letter from the New York Natural Heritage Program is in Appendix C.

### **2.3            OBSERVATIONS OF STRESS**

During the Site visit, CRA did not observe any areas of noticeable stress in the vegetation due to Site operations. City vegetation is stressed by human activities to a certain extent and this level of stress is normally encountered. This stress may be manifested by stunted vegetation due to poor drainage or poor soil conditions, buildup of road deicing salts, and other factors. Aquatic stresses found in the Buffalo River were discussed above. These stresses are due in part to current conditions such as CSO discharges and poor habitat conditions due to over 100 years of industrial activities along the banks of the river.

### **3.0 DESCRIPTION OF FISH AND WILDLIFE RESOURCE VALUE**

#### **3.1 VALUE OF HABITAT TO ASSOCIATED FAUNA**

The area surrounding the Site consists of residential, commercial, and industrial developments. There are some areas of mowed lawn and a small sparsely wooded area is located to the north of the Site. However, because food, shelter, and breeding/roosting habitat features are limited in the area surrounding the Site, use by wildlife is very limited.

A portion of the Seneca Bluffs area is located approximately 0.5 mile to the south of the Site. The area is currently used as a recreational area for residents (fishing, walking) and habitat for birds and other animals. The Seneca Bluffs area is just upstream of the uppermost end of the Buffalo River AOC. The Buffalo River AOC is distinguished by low fish and macroinvertebrate diversity, degraded habitat, low dissolved oxygen, and presence of PCBs, metals, and industrial organics in sediment. It can be assumed that the area of the river just upstream of the AOC is also degraded. A study conducted on the AOC determined that the water quality just below the confluence of the Buffalo River and Cazenovia Creek (downstream of the Site and Seneca Bluffs) was generally good, but fish and macroinvertebrate populations were impoverished (Irvine et al. 2005).

In summary, the area surrounding the Site offers limited habitat to species that may live in the Buffalo City area due to limited food, cover, and breeding sites. Most of the land surrounding the Site is industrial, commercial, or residential, and few areas of natural habitat exist. The Buffalo River has been severely degraded for several decades. The Seneca Bluffs area is located on the opposite bank of the Buffalo River as the Site; therefore, it is very unlikely that Site related chemicals could have affected Seneca Bluffs.

#### **3.2 VALUE OF RESOURCES TO HUMANS**

There are no current or potential uses of fish and wildlife resources by humans within 0.5 mile of the Site, except for a small area by the Buffalo River, which could be used for fishing. The Seneca Bluffs habitat restoration area is located to the south of the Site and can be used by humans for fishing, hiking, and wildlife observation. The area around the Site is too densely populated for hunting. Within 2 miles of the Site, there are additional recreational prospects for residents. There is a grass playground to the immediate southwest of the Site. Houghton Park is located to the southeast of the Site, with the majority of the park consisting of playing fields, with areas of the park near the



river forested. Several other small recreational parks are located within 2 miles of the Site. Several miles of the Buffalo River flow south of the Site, including parts of the river designated as an AOC. Studies of resident use of the river show that it is used for fishing, boating, swimming, and other activities (Irvine et al. 2005). There is a fish advisory on the Buffalo River stating that no one should consume carp from the river due to contamination by PCBs. Use of these natural resources is limited due to the urbanized nature of the area surrounding the Site, as well as the ongoing contamination of the Buffalo River by other sources.

#### **4.0 IDENTIFICATION OF APPLICABLE FISH AND WILDLIFE REGULATORY CRITERIA**

There are no terrestrial wildlife habitats, wetlands, or aquatic habitats on the Site that would be used by aquatic life or wildlife or humans. However, to remain conservative, the screening criteria listed in Table 3 should be used to screen surficial soil chemical parameters for future remediation decisions. In addition, groundwater parameters should be screened to surface water criteria. The screening of groundwater parameters to surface water criteria is a conservative approach that will protect aquatic life. There are no sediments associated with the Site.

For the purpose of this assessment, recent Site data were screened to ecological screening values. Table 4 presents the results of the screening. Lead, the only chemical analyzed for in soil, was screened against the Eco-SSL criteria produced by USEPA (USEPA 2005). Chemicals detected in groundwater were screened to surface water concentrations. The conservatism of this screening of groundwater with surface water ecological screening values (ESVs) should be emphasized. There will often be appreciable reductions in groundwater concentrations due to ongoing fate processes before the groundwater discharges to the nearest surface water where dilution is the primary reduction mechanism. No surface water discharges on the Site.

As a first choice, water quality criteria for aquatic life from New York were chosen for ESVs (NYDEC 2008). If no New York value was available, national water quality criteria (USEPA 2006) for freshwater were used. If no national chronic water quality criteria were available, ESVs from USEPA Region V (2003a) and the State of Michigan (MDEQ 2000) were employed. For PAHs, Final Chronic Values (FCV) for water were used (USEPA 2003b).

Most of the surface water quality criteria for metals are applicable to dissolved metals concentrations, because adsorbed and insoluble metals pose little to no risk (USEPA, 1993, 1999). For those ESVs based on dissolved metals, dissolved concentrations of metals in surface water were used.

## 5.0 CONTAMINANT-SPECIFIC IMPACT ASSESSMENT

### 5.1 PATHWAYS ANALYSIS

There are two possible pathways that contaminants may mobilize from the Site. Dissolved contaminants in groundwater may be transported through groundwater flow to the Buffalo River. The other pathway is through stormwater runoff where soil particles are suspended in runoff and transported to the Site's storm sewer system. However, there is no evidence that either of these pathways is transporting contaminants in significant concentrations to the Buffalo River. Contaminants in groundwater appear to be localized in one area of the Site. In addition dilution by upgradient groundwater will significantly dilute on-Site water as will dilution afforded by the river should contaminants ever reach the river. Once collected in the sewers, soil contaminants would be provided treatment and dilution by the Buffalo sewage treatment plant. Likewise, any discharges from CSOs would take place during heavy precipitation events when upstream dilution rate of the river will be extremely high. Based on this discussion, CRA does not believe that contaminants originating from the Site are impacting fish and wildlife habitats.

### 5.2 CRITERIA-SPECIFIC ANALYSIS

CRA screened groundwater data and surficial soil data against conservative screening criteria as discussed in Section 4.0. Data Tables are included as Appendix B. The results of the screening are shown in Table 4. Four volatile organic compounds (VOCs) detected in groundwater exceeded the ecological screening values as shown in Table 4. These compounds were 1,1,2-trichloroethane, cis-1,2-dichloroethene, tetrachloroethene, and trichloroethene. These compounds are industrial degreasers. The greatest concentrations of these compounds were located in one area of the Site, which may indicate a potential source area. Also exceeding screening were two SVOCs, benzo(b)fluoranthene and bis(2-ethylhexyl)phthalate. Another SVOC, caprolactam, was included because a screening value could not be found. In surficial soils lead exceeded its screening value.

## 6.0 ECOLOGICAL EFFECTS OF REMEDIAL ACTIONS

Remedial actions have not yet been finalized but may consist of one or more of the following: source removal, soil vapor extraction and vapor phase carbon treatment, on-Site groundwater treatment, and Site paving. None of these actions will have a adverse ecological impact on the Site. Remediation of the Site will result in eliminating any future potential pathways to ecological receptors.

**7.0 FISH AND WILDLIFE REQUIREMENTS FOR  
IMPLEMENTATION OF REMEDIAL ACTIONS**

Implementation of erosion control and stormwater management measures on the Site during remediation will reduce the potential for contaminants to migrate off the Site.

## 8.0 MONITORING

The lack of fish and wildlife habitat and lack of evidence of a contaminant pathway in the vicinity of the Site indicate that monitoring of fish and wildlife habitats is not required. CRA is recommending that during any active remedial measures that erosion control measures, stormwater management measures and treatment system operations be monitored in accordance with accepted practices and permit conditions.

## 9.0 SUMMARY AND CONCLUSIONS

The objectives of the FWIA were to identify fish and wildlife resources that presently exist and that existed before contamination introduction on a site and to provide information for the design of a remedial investigation. Upon review of the Buffalo China Site, CRA has concluded no impact to fish and wildlife on or near the Site due to dense urbanization and lack of natural habitats surrounding the Site. However, to be conservative, CRA completed the additional relevant steps of the FWIA. Based on this analysis, CRA concludes that the planned remedial actions will not harm fish or wildlife and will result in the removal or isolation of Site-related contaminants, thus preventing future off-Site migration of Site-related contaminants and impacts to natural resources.

## 10.0 REFERENCES

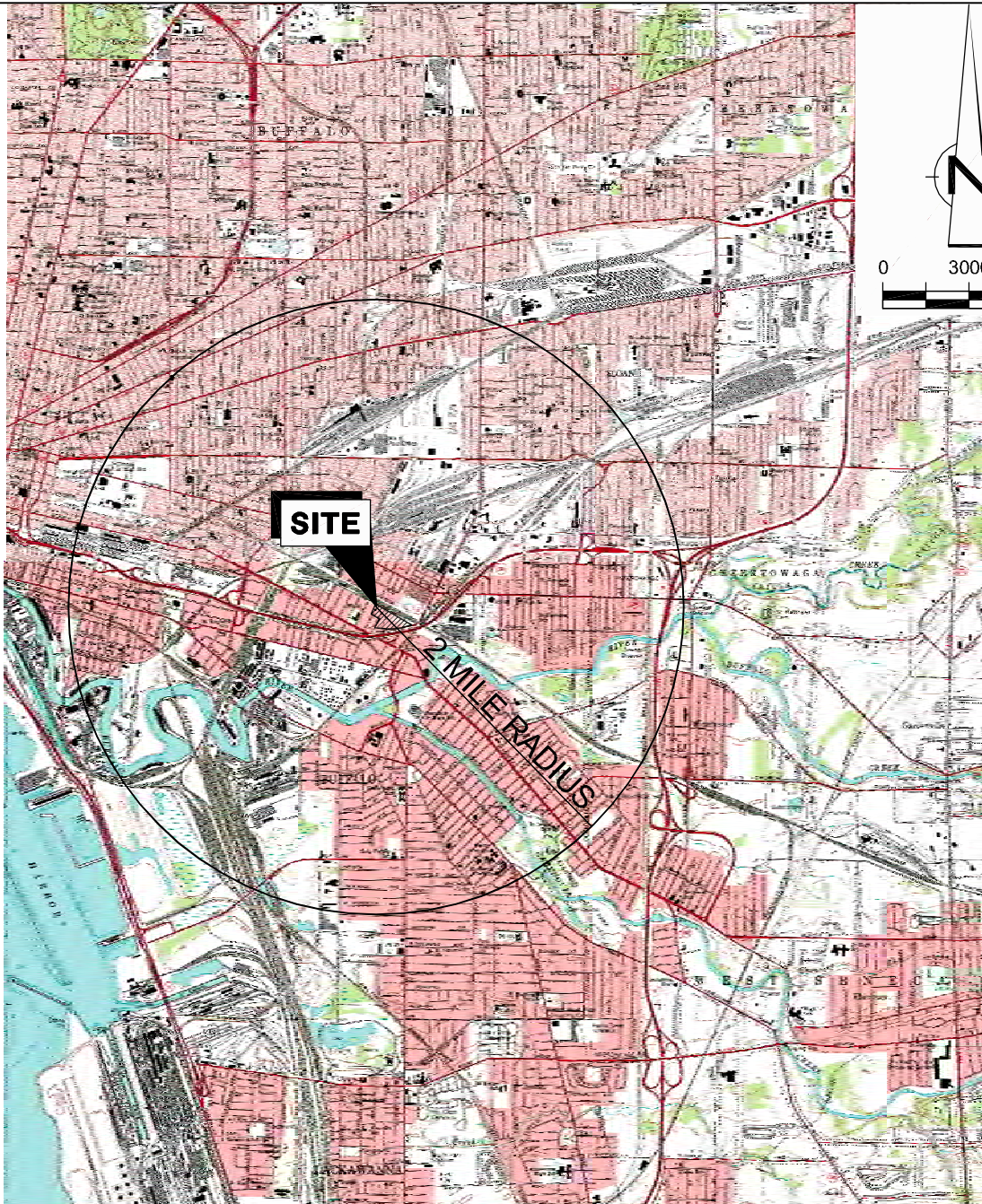
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USEPA, 2006. National recommended water quality criteria. United States Environmental Protection Agency, Office of Water, Washington, DC. EPA-4304T.

## FIGURES



REFERENCE:

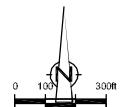
UNITED STATES GEOLOGIC SURVEY BUFFALO NE, BUFFALO SE QUADRANGLE, NY  
TOPOGRAPHIC, 7.5 MINUTES SERIES 1965

figure 1

**SITE LOCATION MAP**  
**BROWNFIELD CLEANUP AGREEMENT SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE (NO. C915209)**  
*Buffalo, New York*







**LEGEND**

RES	RESIDENTIAL	127.55 ACRES
I/C	INDUSTRIAL/COMMERCIAL	233.59 ACRES
ML	MOWED LAWN	57.60 ACRES
MR	MOWED ROADSIDE	2.87 ACRES
JY	JUNKYARD	15.33 ACRES
VL	URBAN VACANT LAND	37.10 ACRES
UF	URBAN FOREST UPLAND	5.35 ACRES
OU	OPEN UPLAND	2.52 ACRES
QUY	QUARRY	2.22 ACRES
BR	BUFFALO RIVER	2.92 ACRES
SCH	SCHOOL	.85 ACRES
		PAVED ROAD
		RAILROAD

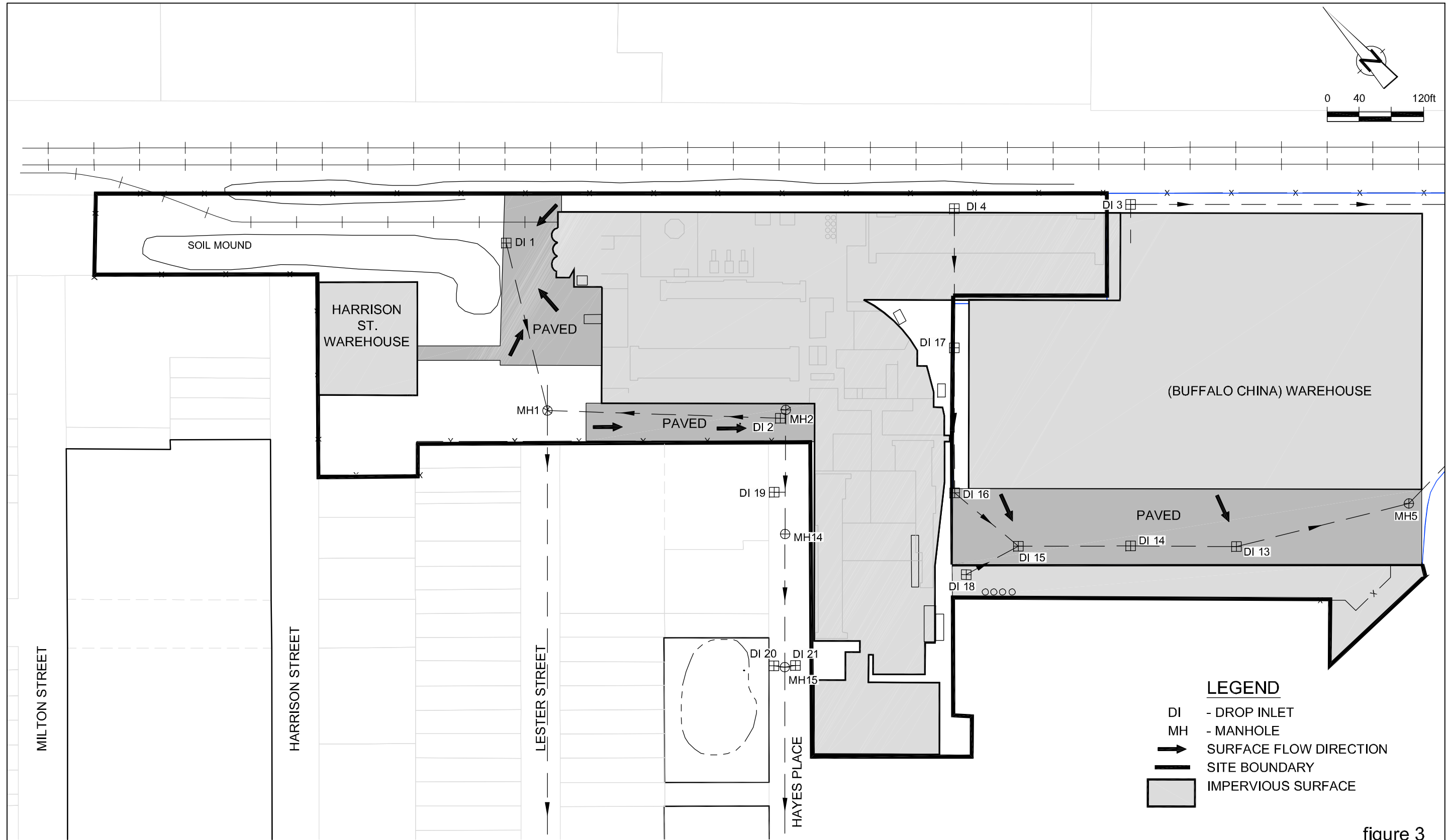
No.	Revision	Date	Initial

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

WARNING: ALTERING THIS DOCUMENT IS IN VIOLATION OF THE NEW YORK STATE EDUCATION LAW EXCEPT AS PROVIDED IN SECTION 7209, PART 2 OF THE LAW.

FORMER BUFFALO CHINA SITE  
 CITY OF BUFFALO  
 SURROUNDING COVER TYPE  
 NEW YORK STATE BROWNFIELD CLEANUP PROGRAM INVESTIGATION SITE C915209

<b>CONESTOGA ROVERS &amp; ASSOCIATES, Inc.</b>		Date: JUNE 2008		
Source Reference:	Project Manager:	Reviewed By:	Designed By:	Drawn By:
Scale: 1" = 300'	Project No: 37191-00	Report No: 003	Drawing No: 2	WJA



\*NOTE: STORM SEWERS ON EAST SIDE FLOW EAST TO BAILEY AVE. THEN SOUTH TO SENECA STREET. STORM SEWERS ON THE WEST SIDE FLOW SOUTH TO SENECA STREET. FROM THERE THE LINE UNDER SENECA STREET FLOWS WEST TO BSA. OVERFLOW DISCHARGES TO THE HAMBURG DRAIN.

figure 3  
**SITE DRAINAGE**  
 BROWNFIELD CLEANUP AGREEMENT SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 Buffalo, New York



## TABLES

TABLE 1

HABITAT COVER TYPES WITHIN A HALF-MILE RADIUS OF THE SITE  
 BROWNFIELD CLEANUP SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

<i>Habitat Type</i>	<i>Acres</i>	<i>Percent</i>	<i>Description</i>
Industry/Commercial	233.59	47.9%	Ruderal areas, buildings, parking lots
Residential	127.55	26.1%	Homes, small commercial establishments
Mowed Lawn	57.6	11.8%	Cool weather grasses, ornamentals
Urban Vacant Lot	37.1	7.6%	Upland- ruderal species
Junkyard	15.33	3.1%	Upland- disturbed areas
Urban Forested Upland	5.35	1.1%	Mainly invasive, short-lived species
Buffalo River	2.92	0.6%	North bank, man-made structures
Mowed Roadside	2.87	0.6%	Cool weather grasses, weeds
Open Upland	2.52	0.5%	Ruderal species
Quarry	2.22	0.5%	Active surface mine
School	0.85	0.2%	Buildings, playground
Wetlands	0.1	0.02%	Small portion of Seneca Bluffs
Total Acres <sup>1</sup>	488	100.0%	

Note:

<sup>1</sup> Based on a 1/2-mile radius.

TABLE 2

PARKS WITHIN A TWO-MILE RADIUS OF THE SITE  
 BROWNFIELD CLEANUP SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

<i>Park</i>	<i>Type</i>
Tift Nature Preserve	Public/Conservation
Seneca Bluffs	Fish and Wildlife Project
Alltft Site	Fish and Wildlife Project
Buffalo Color Peninsula	Fish and Wildlife Project
Smith Street Pocket Park	Fish and Wildlife Project
Bailey Avenue Pocket Park	Recreation
Houghton Park	Recreation
Heacock Park	Recreation
Taylor Park	Recreation
Dingens Park	Recreation
Hennepin Park	Recreation
Sperry Park	Recreation
Cazenovia Park	Recreation
Willert Park	Recreation
Hillery Playground	Recreation
Taylor Playground	Recreation
Bedmond Playground	Recreation
Father Conway Playground	Recreation



**APPLICABLE FISH AND WILDLIFE CRITERIA - GROUNDWATER AND SURFACE SOIL  
BROWNFIELD CLEANUP SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Parameters	Units	Surface Soil (only lead was analyzed, therefore, only its ESV is given)			
		Groundwater		ESV <sup>1</sup>	Source <sup>2</sup>
		ESV <sup>1</sup>	Source <sup>2</sup>	ESV <sup>1</sup>	Source <sup>2</sup>
<i>Volatile Organic Compounds</i>					
1,1,2-Trichloroethane	ug/L	500	EPA Region V	-	-
1,2,4-Trichlorobenzene	ug/L	30	EPA Region V	-	-
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	170	EPA Region V	-	-
cis-1,2-Dichloroethene	ug/L	5500	MDEQ	-	-
Methyl Tert Butyl Ether	ug/L			-	-
Tetrachloroethene	ug/L	45	EPA Region V	-	-
trans-1,2-Dichloroethene	ug/L	14000	MDEQ	-	-
Trichloroethene	ug/L	47	EPA Region V	-	-
Vinyl chloride	ug/L	930	EPA Region V	-	-
<i>Semi-volatile Organic Compounds</i>					
2-Methylnaphthalene	ug/L	72.16	FCV	-	-
Benzo(a)anthracene	ug/L	2.23	FCV	-	-
Benzo(b)fluoranthene	ug/L	0.68	FCV	-	-
bis(2-Ethylhexyl)phthalate	ug/L	0.60	NY	-	-
Caprolactam	ug/L			-	-
Diethyl phthalate	ug/L	110	EPA Region V	-	-
Fluoranthene	ug/L	7.11	FCV	-	-
Phenanthrene	ug/L	19.13	FCV	-	-
Phenol	ug/L	180	EPA Region V	-	-
Pyrene	ug/L	10.11	FCV	-	-
<i>Metals</i>					
Aluminum	ug/L	87	USEPA NRWQC	-	-
Antimony	ug/L	1100	MDEQ	-	-
Arsenic	ug/L	150	NY	-	-
Barium	ug/L	220	EPA Region V	-	-
Calcium	ug/L			-	-
Chromium Total	ug/L	313.15	NY <sup>3</sup>	-	-
Cobalt	ug/L	5.00	NY	-	-
Copper	ug/L	51.60	NY <sup>3</sup>	-	-
Iron	ug/L	1000	USEPA NRWQC	-	-
Lead	ug/L	7.43	NY <sup>3</sup>	11	Eco-SSL
Magnesium	ug/L			-	-
Manganese	ug/L	9051.6	MDEQ	-	-
Mercury	ug/L	0.77	NY	-	-
Nickel	ug/L	52	USEPA NRWQC	-	-
Potassium	ug/L			-	-
Selenium	ug/L	4.60	NY	-	-
Silver	ug/L	0.10	NY	-	-
Sodium	ug/L			-	-

**APPLICABLE FISH AND WILDLIFE CRITERIA - GROUNDWATER AND SURFACE SOIL  
BROWNFIELD CLEANUP SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

Parameters	Units	Groundwater		Surface Soil (only lead was analyzed, therefore, only its ESV is given)	
		ESV <sup>1</sup>	Source <sup>2</sup>	ESV <sup>1</sup>	Source <sup>2</sup>
Thallium	ug/L	8.00	NY	-	-
Vanadium	ug/L	14.00	NY	-	-
Zinc	ug/L	368.71	NY <sup>3</sup>	-	-
<i>Metals (Dissolved)</i>					
Antimony (Dissolved)	ug/L	1100	MDEQ	-	-
Barium (Dissolved)	ug/L	220	EPA Region V	-	-
Calcium (Dissolved)	ug/L			-	-
Cobalt (Dissolved)	ug/L	5.00	NY	-	-
Iron (Dissolved)	ug/L	1000	0.00	-	-
Magnesium (Dissolved)	ug/L			-	-
Manganese (Dissolved)	ug/L	1049.66	MDEQ	-	-
Mercury (Dissolved)	ug/L	0.77	NY	-	-
Nickel (Dissolved)	ug/L	470	USEPA NRWQC	-	-
Potassium (Dissolved)	ug/L			-	-
Sodium (Dissolved)	ug/L			-	-
Vanadium (Dissolved)	ug/L	14	NY	-	-
<i>Pesticides</i>					
alpha-BHC	ug/L	12.4	EPA Region V	-	-
Endosulfan sulfate	ug/L	2.22	EPA Region V	-	-
Endrin	ug/L	0.04	EPA Region V	-	-
<i>Wet Chemistry</i>					
Cyanide (total)	ug/L	5.2	NY, free	-	-

## Notes:

(1) Groundwater ESVs for total metals pertain to dissolved concentrations.

(2) Sources:

**MDEQ:** MDEQ. 2000. Rule 57 Water Quality Values. Michigan Department of Environmental Quality. Criterion accessible from here: [www.michigan.gov/deq/1,1607,7-135-3313\\_3686\\_3728-11383--CI,00.html](http://www.michigan.gov/deq/1,1607,7-135-3313_3686_3728-11383--CI,00.html).

**NY:** Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations, 2008.

**EPA Region V:** USEPA Region V, 2003. Screening level benchmarks used in ecological risk assessments.

**USEPA:** USEPA, 2006. National recommended water quality criteria, Continuous Chronic Concentration. United States Environmental Protection Agency, Office of Water, Washington, DC. EPA-4304T.

**FCV:** Final Chronic Value, USEPA. 2003. Procedures for the derivation of equilibrium partitioning sediment benchmarks (ESBs) for the protection of benthic organisms: PAH mixtures. EPA-600-R-02-013.

**Eco-SSL:** USEPA, 2005. Ecological Soil Screening Levels for Lead. USEPA Office of Emergency and Remedial Response. March 2005.

(3) ESV calculated using a site-specific water hardness of 581 ppm.

**TABLE 4**  
**CONTAMINANTS OF CONCERN IN GROUNDWATER AND SURFACE SOIL**  
**BROWNFIELD CLEANUP SITE INVESTIGATION**  
**FORMER BUFFALO CHINA SITE (NO. C915209)**  
**BUFFALO, NEW YORK**

<i>Parameters</i>	<i>Units</i>	<i>FOD</i>	<i>mean detected</i>	<i>max detected</i>	<i>ESV</i>	<i>Source <sup>1</sup></i>	<i>mean SQ</i>	<i>max SQ</i>
<b>Groundwater:</b>								
<i>Volatile Organic Compounds</i>								
1,1,2-Trichloroethane	ug/L	5%	9800	9800	500	EPA Region V	19.60	19.60
cis-1,2-Dichloroethene	ug/L	77%	47789	240000	5500	MDEQ	8.69	43.64
Tetrachloroethene	ug/L	14%	454.3	710	45	EPA Region V	10.10	15.78
Trichloroethene	ug/L	77%	141475	600000	47	EPA Region V	3010.10	12765.96
<i>Semi-volatile Organic Compounds</i>								
Benzo(b)fluoranthene	ug/L	17%	0.81	0.81	0.68	FCV	1.20	1.20
bis(2-Ethylhexyl)phthalate	ug/L	50%	1.97	2.4	0.60	NY	3.28	4.00
Caprolactam	ug/L	50%	610	1200				
<b>Surface Soil:</b>								
<i>Metals</i>								
Lead	mg/kg	100%	608.28	2090	11	Eco-SSL	55.30	190.00

Notes:

(1) Sources:

**MDEQ:** MDEQ. 2000. Rule 57 Water Quality Values. Michigan Department of Environmental Quality. Criterion accessible from here: [www.michigan.gov/deq/1,1607,7-135-3313\\_3686\\_3728-11383--CI,00.html](http://www.michigan.gov/deq/1,1607,7-135-3313_3686_3728-11383--CI,00.html).

**NY:** Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations, 2008.

**Region 5:** USEPA Region V, 2003. Screening level benchmarks used in ecological risk assessments.

**FCV:** Final Chronic Value, USEPA. 2003. Procedures for the derivation of equilibrium partitioning sediment benchmarks (ESBs) for the protection of benthic organisms: PAH mixtures. EPA-600-R-02-013.

**Eco-SSL:** USEPA, 2005. Ecological Soil Screening Levels for Lead. USEPA Office of Emergency and Remedial Response. March 2005

APPENDIX A  
COLOR PHOTOGRAPHS

**FORMER BUFFALO CHINA SITE  
51 HAYES PLACE  
CITY OF BUFFALO, ERIE COUNTY, NEW YORK**



Photo 1. Looking at the north side of the Site, with railroad tracks obscured to the left.



Photo 4. Looking at residential areas south of the Site.



Photo 2. Looking south at the Site.



Photo 5. Looking at a vacant urban lot south of the Site.



Photo 3. Looking at industrial properties north of the Site.



Photo 6. Looking at Rt 190 south of the Site.

APPENDIX B  
SITE GROUNDWATER AND SURFICIAL SOIL DATA

TABLE B.1

ANALYTICAL RESULTS SUMMARY - SURFACE SOIL  
 BROWNFIELD CLEANUP SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

		<i>Location ID:</i>	<i>NE Harrison St WH</i>	<i>NE Harrison St WH</i>	<i>S Harrison St WH</i>	<i>S Harrison St WH</i>	<i>Soil Mound</i>	<i>Soil Mound</i>
		<i>Sample Date:</i>	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008	5/7/2008
<i>Parameter</i>	<i>Units</i>	<i>Depth:</i>	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft	0 - 0.17 ft	0.15 - 0.33 ft
<i>Metals</i>								
Lead	mg/kg		15.2	33.7	738 J	742 J	30.8	2090 J

*Notes:*

U - Not present at the associated value.

J - Estimated concentration.

TABLE B.2

SCREENING - SURFACE SOIL  
 BROWNFIELD CLEANUP SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

Parameter	Units	FOD	mean <sup>1</sup>	max <sup>1</sup>	ESV	source <sup>2</sup>	mean SQ	max SQ
<i>Metals</i>								
Lead	mg/kg	100%	608.28	2090	11	Eco-SSL	55.30	190

**Notes:**

(1) Mean is the average of all detected concentrations. Max is the maximum detected concentration.

(2) Source:

**Eco-SSL:** USEPA, 2005. Ecological Soil Screening Levels for Lead. USEPA Office of Emergency and Remedial Response. March 2005.



TABLE B.3  
ANALYTICAL RESULTS SUMMARY - GROUNDWATER  
BROWNFIELD CLEANUP SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK

Location ID: Sample Date:	MI-V-4 8/21/2007	MI-V-4 8/21/2007 Duplicate	MI-V-4 5/28/2008	MI-V-4 5/28/2008 Duplicate	MI-V-5 5/11/2006	MI-V-5 5/11/2006 Duplicate	MI-V-5 8/21/2007	MI-V-5 5/28/2008	MI-V-6 5/11/2006	MI-V-6 5/28/2008	MI-V-7 5/11/2006	MI-V-8 5/11/2006	MI-V-8 8/21/2007	MI-V-8 5/28/2008	MI-V-9 5/11/2006	MI-V-9 8/21/2007	MI-V-9 5/28/2008	MI-V-12 8/21/2007	MI-V-12 8/21/2007 Duplicate	MI-V-12 5/28/2008	MI-V-12 5/28/2008 Duplicate
<i>Parameters</i>	<i>Units</i>																				
<i>Volatile Organic Compounds</i>																					
1,1,2-Trichloroethane	ug/L	150 U	100 U	71 U	71 U	30000 U	30000 U	9800 J	12000 U	1200 U	59 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	15000 U	1200 U	2500 U	2500 U
1,2,4-Trichlorobenzene	ug/L	150 U	100 U	71 U	71 U	30000 U	30000 U	12000 U	12000 U	1200 U	15 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	15000 U	1200 U	2500 U	2500 U
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)	ug/L	150 U	100 U	71 U	71 U	30000 U	30000 U	12000 U	12000 U	1200 U	59 U	5.0 U	3.0 J	5.0 U	5.0 U	5.0 U	5.0 U	15000 U	1200 U	2500 U	2500 U
cis-1,2-Dichloroethene	ug/L	2200 J	1100 J	1200	1300	130000	140000	240000	150000	24000	1600	5.0 U	8.5	1.0 J	5.0 U	5.0 U	5.0 U	65000 J	25000 J	15000	16000
Methyl Tert Butyl Ether	ug/L	150 U	100 U	71 U	71 U	30000 U	30000 U	12000 U	12000 U	1200 U	59 U	1.1 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	15000 U	1200 U	2500 U	2500 U
Tetrachloroethene	ug/L	150 U	100 U	71 U	71 U	30000 U	30000 U	12000 U	12000 U	1200 U	13 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	15000 U	1200 U	640 J	710 J
trans-1,2-Dichloroethene	ug/L	87 J	34 J	27 J	29 J	30000 U	30000 U	12000 U	12000 U	1200 U	11 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	15000 U	1200 U	2500 U	2500 U
Trichloroethene	ug/L	2000 J	1000 J	2200	2200	540000	600000	550000	310000	12000	630	5.0 U	31	3.2 J	5.0 U	5.0 U	5.0 U	190000 J	26000 J	81000	88000
Vinyl chloride	ug/L	31 J	100 U	17 J	71 U	30000 U	30000 U	12000 U	12000 U	570 J	24 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	15000 U	760 J	760 J	910 J
<i>Semi-volatile Organic Compounds</i>																					
2-Methylnaphthalene	ug/L	2.1 U	2.1 U	1.9 U	1.9 U	--	--	--	--	--	--	--	--	--	--	--	0.62 J	1.9 U	--	--	--
Benzo(a)anthracene	ug/L	2.1 U	0.84 J	1.9 U	1.9 U	--	--	--	--	--	--	--	--	--	--	--	--	2.0 U	1.9 U	--	--
Benzo(b)fluoranthene	ug/L	2.1 U	0.81 J	1.9 U	1.9 U	--	--	--	--	--	--	--	--	--	--	--	--	2.0 U	1.9 U	--	--
bis(2-Ethylhexyl)phthalate	ug/L	2.1 J	1.4 J	9.4 U	9.5 U	--	--	--	--	--	--	--	--	--	--	--	--	2.4 J	9.5 U	--	--
Caprolactam	ug/L	260	370	5.6 U	5.7 U	--	--	--	--	--	--	--	--	--	--	--	--	1200	5.7 U	--	--
Diethyl phthalate	ug/L	11 U	3.0 J	9.4 U	9.5 U	--	--	--	--	--	--	--	--	--	--	--	--	9.9 U	9.5 U	--	--
Fluoranthene	ug/L	2.1 U	1.5 J	1.9 U	1.9 U	--	--	--	--	--	--	--	--	--	--	--	--	2.0 U	1.9 U	--	--
Phenanthrene	ug/L	0.76 J	1.1 J	1.9 U	1.9 U	--	--	--	--	--	--	--	--	--	--	--	--	2.0 U	1.9 U	--	--
Phenol	ug/L	2.1 U	0.59 J	1.9 U	1.9 U	--	--	--	--	--	--	--	--	--	--	--	--	0.72 J	1.9 U	--	--
Pyrene	ug/L	0.72 J	1.2 J	1.9 U	1.9 U	--	--	--	--	--	--	--	--	--	--	--	--	2.0 U	1.9 U	--	--
<i>Metals</i>																					
Aluminum	ug/L	5110 J	4190 J	116 J	102 J	--	--	--	--	--	--	--	--	--	--	--	--	8250 J	200 U	--	--
Antimony	ug/L	3.9 J	5.0 J	10.0 U	10.0 U	--	--	--	--	--	--	--	--	--	--	--	--	7.5 J	10.0 U	--	--
Arsenic	ug/L	4.7 J	4.1 J	10.0 U	10.0 U	--	--	--	--	--	--	--	--	--	--	--	--	9.4 J	10.0 U	--	--
Barium	ug/L	110 J	86.6 J	39.5 J	38.2 J	--	--	--	--	--	--	--	--	--	--	--	--	90.2 J	29.1 J	--	--
Calcium	ug/L	172000	165000	136000	140000	--	--	--	--	--	--	--	--	--	--	--	--	301000	217000	--	--
Chromium Total	ug/L	13.6	10.2	5.0 U	5.0 U	--	--	--	--	--	--	--	--	--	--	--	--	14.5	5.0 U	--	--
Cobalt	ug/L	4.4 J	3.3 J	1.1 J	0.93 J	--	--	--	--	--	--	--	--	--	--	--	--	6.5 J	3.4 J	--	--
Copper	ug/L	13.8 J	10.2 J	25.0 U	25.0 U	--	--	--	--	--	--	--	--	--	--	--	--	24.6 J	25.0 U	--	--
Iron	ug/L	6350	4850	653 J	504 J	--	--	--	--	--	--	--	--	--	--	--	--	14300	1620 J	--	--
Lead	ug/L	56.8 J	30.0 J	2.7 J	2.8 J	--	--	13.8	3.2	3.0 U	--	46	33.6	3.0 U	--	--	--	28.7	3.0 U	3.0 U	3.0 U
Magnesium	ug/L	46300	44000	37400	38100	--	--	--	--	--	--	--	--	--	--	--	--	58500	36400	--	--
Manganese	ug/L	915	860	858	864	--	--	--	--	--	--	--	--	--	--	--	--	472	317	--	--
Mercury	ug/L	0.097 J	0.20 U	0.20 U	0.20 U	--	--	--	--	--	--	--	--	--	--	--	--	0.088 J	0.20 U	--	--
Nickel	ug/L	10.7 J	8.1 J	2.2 J	2.0 J	--	--	--	--	--	--	--	--	--	--	--	--	18.5 J	5.4 J	--	--
Potassium	ug/L	2470 J	2260 J	675 J	711 J	--	--	--	--	--	--	--	--	--	--	--	--	10600	7090	--	--
Selenium	ug/L	2.6 J	5.0 U	5.0 U	5.0 U	--	--	--	--	--	--	--	--	--	--	--	--	5.0 U	5.0 U	--	--
Silver	ug/L	2.1 J	1.2 J	5.0 U	5.0 U	--	--	--	--	--	--	--	--	--	--	--	--	1.3 J	5.0 U	--	--
Sodium	ug/L	168000	173000	133000	145000	--	--	--	--	--	--	--	--	--	--	--	--	44700	32700	--	--
Thallium	ug/L	3.2 J	5.0 J	10.0 U	10.0 U	--	--	--	--	--	--	--	--	--	--	--	--	10.0 U	3.7 J	--	--
Vanadium	ug/L	18.8 J	21.6 J	1.3 J	50.0 U	--	--	--	--	--	--	--	--	--	--	--	--	17.9 J	1.1 J	--	--
Zinc	ug/L	67.4	40.9 U	20.0 U	20.0 U	--	--	--	--	--	--	--	--	--	--	--	--	93.3	20.0 U	--	--
<i>Metals (Dissolved)</i>																					
Aluminum (Dissolved)	ug/L	200 U	200 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	200 U	--	--	--
Antimony (Dissolved)	ug/L	10.0 U	10.0 U	10.0 U	10.0 U	--	--	--	--	--	--	--	--	--	--	--	--	3.3 J	10.0 U	--	--
Arsenic (Dissolved)	ug/L	10 U	10 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10 U	--	--	--
Barium (Dissolved)	ug/L	40.4 J	43.1 J	34.5 J	33.4 J	--	--	--	--	--	--	--	--	--	--	--	--	35.8 J	28.3 J	--	--
Calcium (Dissolved)	ug/L	135000	144000	134000	133000	--	--	--	--	--	--	--	--	--	--	--	--	249000	224000	--	--
Chromium Total (Dissolved)	ug/L	5 U	5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--
Cobalt (Dissolved)	ug/L	50.0 U	50.0 U	1.2 J	0.87 J	--	--	--	--	--	--	--	--	--	--	--	--	50.0 U	3.2 J	--	--
Copper (Dissolved)	ug/L	25 U	25 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	25 U	--	--	--
Iron (Dissolved)	ug/L	100 U	100 U	218	207	--	--	--	--	--	--	--	--	--	--	--	--	100 U	620	--	--
Lead (Dissolved)	ug/L	3.0 U	3.0 U	3.0 U	3.0 U	--	--	3.0 U	3.0 U	--	3.0 U	--	3.0 U	3.0 U	--	--	--	3.0 U	3.0 U	3.0 U	3.0 U
Magnesium (Dissolved)	ug/L	36000	38300	36700	36600	--	--	--	--	--	--	--	--	--	--	--	--	44700	38000	--	--
Manganese (Dissolved)	ug/L	714	761	799	786	--	--	--	--	--	--	--	--	--	--	--	--	221	296	--	--
Mercury (Dissolved)	ug/L	0.062 J	0.20 U	0.20 U	0.20 U	--	--	--	--	--	--	--	--	--	--	--	--	0.067 J	0.20 U	--	--
Nickel (Dissolved)	ug/L	1.4 J	1.2 J	2.1 J	1.9 J	--	--	--	--	--	--	--	--	--	--	--	--	4.5 J	5.6 J	--	--
Potassium (Dissolved)	ug/L	1290 J	1390 J	689 J	687 J	--	--	--	--	--	--	--	--	--	--	--	--	7610	7150	--	--
Selenium (Dissolved)	ug/L	5 U	5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--
Silver (Dissolved)	ug/L	5 U	5 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5 U	--	--	--
Sodium (Dissolved)	ug/L	193000	192000	138000	144000	--	--	--	--	--	--	--	--	--	--	--	--	43200	34300	--	--
Thallium (Dissolved)	ug/L	10 U	10 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10 U	--	--	--
Vanadium (Dissolved)	ug/L	11.8 J	10.7 J	1.6 J	2.2 J	--	--	--	--	--	--	--	--	--	--	--	--	1.3 J	2.6 J	--	--
Zinc (Dissolved)	ug/L	20 U	20 U	--	--	--	--	--	--	--	--	--	--	--	--	--	--	20 U	--	--	--
<i>Pesticides</i>																					
alpha-BHC	ug/L	0.021 J	0.051 U	0.047 U	0.048 U	--	--	--	--	--	--	--	--	--	--	--	--	0.051 U	0.047 U	--	--
Endosulfan sulfate	ug/L	0.051 U	0.051 U	0.047 U	0.048 U	--	--	--	--	--	--	--	--	--	--	--	--	0.024 J	0.047 U	--	--
Endrin	ug/L	0.051 U	0.051 U	0.047 U	0.048 U	--	--	--	--	--	--	--	--	--	--	--	--	0.011 J	0.047 U	--	--
<i>Wet Chemistry</i>																					

TABLE B.4

**SCREENING - GROUNDWATER  
BROWNFIELD CLEANUP SITE INVESTIGATION  
FORMER BUFFALO CHINA SITE (NO. C915209)  
BUFFALO, NEW YORK**

<i>Parameters</i>	<i>Units</i>	<i>FOD</i>	<i>mean</i> <sup>1</sup>	<i>max</i> <sup>1</sup>	<i>ESV</i>	<i>source</i> <sup>2</sup>	<i>mean SQ</i>	<i>max SQ</i>	<i>COPC?</i>
<i>Volatile Organic Compounds</i>									
1,1,2-Trichloroethane	ug/L	5%	9800.0	15000	500	EPA Region V	19.60	30.00	Yes
1,2,4-Trichlorobenzene	ug/L	5%	15.0	15	30	EPA Region V	0.50	0.50	No
4-Methyl-2-Pentanone	ug/L	5%	3.0	3	170	EPA Region V	0.02	0.02	No
cis-1,2-Dichloroethene	ug/L	77%	47788.9	2.40E+05	5500	MDEQ	8.69	43.64	Yes
Methyl Tert Butyl Ether	ug/L	5%	1.1	1.1	6500	MDEQ	0.00	0.00	No
Tetrachloroethene	ug/L	14%	454.3	710	45	EPA Region V	10.10	15.78	Yes
trans-1,2-Dichloroethene	ug/L	23%	37.6	87	14000	MDEQ	0.00	0.01	No
Trichloroethene	ug/L	77%	141474.7	6.00E+05	47	EPA Region V	3010.10	12765.96	Yes
Vinyl chloride	ug/L	32%	438.9	910	930	EPA Region V	0.47	0.98	No
<i>Semi-volatile Organic Compounds</i>									
2-Methylnaphthalene	ug/L	17%	0.6	0.62	72.16	FCV	0.01	0.01	No
Benzo(a)anthracene	ug/L	17%	0.8	0.84	2.23	FCV	0.38	0.38	No
Benzo(b)fluoranthene	ug/L	17%	0.8	0.81	0.68	FCV	1.20	1.20	Yes
bis(2-Ethylhexyl)phthalate	ug/L	50%	2.0	2.4	0.60	NY	3.28	4.00	Yes
Caprolactam	ug/L	50%	610.0	1200	-	-	-	-	Yes
Diethyl phthalate	ug/L	17%	3.0	3	110	EPA Region V	0.03	0.03	No
Fluoranthene	ug/L	17%	1.5	1.5	7.11	FCV	0.21	0.21	No
Phenanthrene	ug/L	33%	0.9	1.1	19.13	FCV	0.05	0.06	No
Phenol	ug/L	33%	0.7	0.72	180	EPA Region V	0.00	0.00	No
Pyrene	ug/L	33%	1.0	1.2	10.11	FCV	0.09	0.12	No
<i>Metals</i>									
Aluminum	ug/L	83%	3553.6	8250	87	USEPA NRWQC	40.85	94.83	No
Antimony	ug/L	50%	5.5	7.5	1100	MDEQ	0.00	0.01	No
Arsenic	ug/L	50%	6.1	9.4	150	NY	0.04	0.06	No
Barium	ug/L	100%	65.6	110	220	EPA Region V	0.30	0.50	No
Calcium	ug/L	100%	188500.0	301000	-	-	-	-	Nutrient
Chromium Total	ug/L	50%	12.8	14.5	313.15	NY <sup>5</sup>	0.04	0.05	No
Cobalt	ug/L	100%	3.3	6.5	5.00	NY	0.65	1.30	No <sup>3</sup>
Copper	ug/L	50%	16.2	24.6	51.60	NY <sup>5</sup>	0.31	0.48	No
Iron	ug/L	100%	4712.8	14300	1000	USEPA NRWQC	4.71	14.30	No
Lead	ug/L	53%	24.2	56.8	7.43	NY <sup>5</sup>	3.25	7.64	No <sup>3</sup>
Magnesium	ug/L	100%	43450.0	58500	-	-	-	-	Nutrient
Manganese	ug/L	100%	714.3	915	9051.6	MDEQ	0.08	0.10	No
Mercury	ug/L	33%	0.1	0.097	0.77	NY	0.12	0.13	No
Nickel	ug/L	100%	7.8	18.5	52	USEPA NRWQC	0.15	0.36	No
Potassium	ug/L	100%	3967.7	10600	-	-	-	-	Nutrient
Selenium	ug/L	17%	2.6	2.6	4.60	NY	0.57	0.57	No
Silver	ug/L	50%	1.5	2.1	0.10	NY	15.33	21.00	No <sup>3</sup>
Sodium	ug/L	100%	116066.7	173000	-	-	-	-	Nutrient
Thallium	ug/L	50%	4.0	5	8.00	NY	0.50	0.63	No
Vanadium	ug/L	83%	12.1	21.6	14.00	NY	0.87	1.54	No <sup>3</sup>
Zinc	ug/L	33%	80.4	93.3	368.71	NY <sup>5</sup>	0.22	0.25	No
<i>Metals (Dissolved)</i>									
Aluminum (Dissolved)	ug/L	0%	-	-	-	-	-	-	No
Antimony (Dissolved)	ug/L	17%	3.3	3.3	1100	MDEQ	0.00	0.00	No
Arsenic (Dissolved)	ug/L	0%	-	-	-	-	-	-	No
Barium (Dissolved)	ug/L	100%	35.9	43.1	220	EPA Region V	0.16	0.20	No
Calcium (Dissolved)	ug/L	100%	169833.3	249000	-	-	-	-	Nutrient
Chromium Total (Dissolved)	ug/L	0%	-	-	-	-	-	-	No
Cobalt (Dissolved)	ug/L	50%	1.8	3.2	5.00	NY	0.35	0.64	No
Copper (Dissolved)	ug/L	0%	-	-	-	-	-	-	No
Iron (Dissolved)	ug/L	50%	348.3	620	1000	0.00	0.35	0.62	No
Lead (Dissolved)	ug/L	0%	-	-	-	-	-	-	No
Magnesium (Dissolved)	ug/L	100%	38383.3	44700	-	-	-	-	Nutrient
Manganese (Dissolved)	ug/L	100%	596.2	799	1049.66	MDEQ	0.57	0.76	No
Mercury (Dissolved)	ug/L	33%	0.1	0.067	0.77	NY	0.08	0.09	No
Nickel (Dissolved)	ug/L	100%	2.8	5.6	470	USEPA NRWQC	0.01	0.01	No
Potassium (Dissolved)	ug/L	100%	3136.0	7610	-	-	-	-	Nutrient
Selenium (Dissolved)	ug/L	0%	-	-	-	-	-	-	No
Silver (Dissolved)	ug/L	0%	-	-	-	-	-	-	No
Sodium (Dissolved)	ug/L	100%	124083.3	193000	-	-	-	-	Nutrient
Thallium (Dissolved)	ug/L	0%	-	-	-	-	-	-	No
Vanadium (Dissolved)	ug/L	100%	5.0	11.8	14	NY	0.36	0.84	No

TABLE B.4

SCREENING - GROUNDWATER  
 BROWNFIELD CLEANUP SITE INVESTIGATION  
 FORMER BUFFALO CHINA SITE (NO. C915209)  
 BUFFALO, NEW YORK

<i>Parameters</i>	<i>Units</i>	<i>FOD</i>	<i>mean</i> <sup>1</sup>	<i>max</i> <sup>1</sup>	<i>ESV</i>	<i>source</i> <sup>2</sup>	<i>mean SQ</i>	<i>max SQ</i>	<i>COPC?</i>
Zinc (Dissolved)	ug/L	0%	-	-	-	-	-	-	No
<i>Pesticides</i>									
alpha-BHC	ug/L	17%	0.02	0.021	12.4	EPA Region V	0.00	0.00	No
Endosulfan sulfate	ug/L	17%	0.02	0.024	2.22	EPA Region V	0.01	0.01	No
Endrin	ug/L	17%	0.01	0.011	0.04	EPA Region V	0.31	0.31	No
<i>Wet Chemistry</i>									
Cyanide (total)	ug/L	83%	3.5	6.4	5.2	NY, free	0.68	1.23	No <sup>4</sup>

Notes:

(1) Mean is the average of all detected concentrations. Max is the maximum detected concentration.

(2) Sources:

**MDEQ:** MDEQ. 2000. Rule 57 Water Quality Values. Michigan Department of Environmental Quality. Criterion accessible from here: [www.michigan.gov/deq/1,1607,7-135-3313\\_3686\\_3728-11383--CI,00.html](http://www.michigan.gov/deq/1,1607,7-135-3313_3686_3728-11383--CI,00.html) (Aquatic maximum value)

**NY:** Part 703: Surface Water and Groundwater Quality Standards and Groundwater Effluent Limitations, 2008.

**Region 5:** USEPA Region V, 2003. Screening level benchmarks used in ecological risk assessments.

**USEPA:** USEPA, 2006. National recommended water quality criteria, Continuous Chronic Concentration. United States Environmental Protection Agency, Office of Water, Washington, DC. EPA-4304T.

**FCV:** Final Chronic Value, USEPA. 2003. Procedures for the derivation of equilibrium partitioning sediment benchmarks (ESBs) for the protection of benthic organisms: PAH mixtures. EPA-600-R-02-013.

(3) ESVs for total metals pertain to dissolved concentrations. Although some total metals concentrations exceeded benchmarks, the dissolved concentration was less than its ESV. Decision based on latter. Dissolved forms of metals are typically more toxic than total forms.

(4) As with metals, only the dissolved form of cyanide poses significant toxicity, and is rapidly degraded or volatilized from surface water (Irwin et al. 1997). Therefore, it is not retained.

(5) ESV calculated using a site-specific water hardness of 581 ppm.

APPENDIX C

NEW YORK NATURAL HERITAGE CORRESPONDENCE

# New York State Department of Environmental Conservation

## Division of Fish, Wildlife & Marine Resources

### New York Natural Heritage Program

625 Broadway, Albany, New York 12233-4757

Phone: (518) 402-8935 • FAX: (518) 402-8925

Website: [www.dec.state.ny.us](http://www.dec.state.ny.us)



Alexander B. Grannis  
Commissioner

April 23, 2008

Amy Mac Causland  
Conestoga Rovers  
410 Eagleview Blvd. Suite 110  
Exton, PA 19341

Dear Ms. Mac Causland:

In response to your recent request, we have reviewed the New York Natural Heritage Program databases with respect to an Environmental Assessment for the proposed Brownfields Remediation Project, site as indicated on the map you provided, including a 2-Mile Radius, located at 51 Hayes Place, City of Buffalo, Erie County.

Enclosed is a report of rare or state-listed animals and plants, significant natural communities, and other significant habitats, which our databases indicate occur, or may occur, on your site or in the immediate vicinity of your site. The information contained in this report is considered sensitive and should not be released to the public without permission from the New York Natural Heritage Program.

PLEASE NOTE: The Tift Farm Nature Preserve is within 2 Miles  
of the project site

This project location is adjacent to a designated Significant Coastal Fish and Wildlife Habitat. This habitat is part of New York State's Coastal Management Program (CMP), which is administered by the NYS Department of State (DOS). Projects which may impact the habitat are reviewed by DOS for consistency with the CMP. For more information regarding this designated habitat and applicable consistency review requirements, please contact:

Jeff Zappieri or Vance Barr - (518) 474-6000  
NYS Department of State  
Division of Coastal Resources and Waterfront Revitalization  
41 State Street, Albany, NY 12231

The presence of rare species may result in your project requiring additional permits, permit conditions, or review. For further guidance, and for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the appropriate NYS DEC Regional Office, Division of Environmental Permits, at the enclosed address.

For most sites, comprehensive field surveys have not been conducted; the enclosed report only includes records from our databases. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. This information should NOT be substituted for on-site surveys that may be required for environmental impact assessment.

Our databases are continually growing as records are added and updated. If this proposed project is still under development one year from now, we recommend that you contact us again so that we may update this response with the most current information.

Sincerely,

A handwritten signature in black ink that reads "Tara Seoane" followed by a stylized flourish.

Tara Seoane

Information Services

NY Natural Heritage Program

cc: Reg. 9, Wildlife Mgr.  
Reg. 9, Fisheries Mgr.  
Peter Nye, Endangered Species Unit, Albany

## Natural Heritage Report on Rare Species and Ecological Communities

4

NY Natural Heritage Program, NYS DEC, 625 Broadway, 5th Floor, Albany, NY  
12233-4757  
(518) 402-8935

- This report contains **SENSITIVE** information that should not be released to the public without permission from the NY Natural Heritage Program.
- Refer to the User's Guide for explanations of codes, ranks and fields.
- Location maps for certain species and communities may not be provided 1) if the species is vulnerable to disturbance, 2) if the location and/or extent is not precisely known, 3) if the location and/or extent is too large to display, and/or 4) if the animal is listed as Endangered or Threatened by New York State.

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## Natural Heritage Report on Rare Species and Ecological Communities

4

### BIRDS

#### *Ixobrychus exilis*

<b>Least Bittern</b>	<b>NY Legal Status:</b> Threatened	<b>NYS Rank:</b> S3B,S1N - Vulnerable	Office Use 10893
	<b>Federal Listing:</b>	<b>Global Rank:</b> G5 - Demonstrably secure	ESU
	<b>Last Report:</b> **	<b>EO Rank:</b> **	
	<b>County:</b> Erie		
	<b>Town:</b> City Of Buffalo		
	<b>Location:</b> At, or in the vicinity of, the project site.		
	<b>Directions:</b> **		
	<b>General Quality and Habitat:</b> **For information on the population at this location and management considerations, please contact the NYS DEC Regional Wildlife Manager for the Region where the project is located, or the NYS DEC Endangered Species Unit at 518-402-8859.		

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#### *Podilymbus podiceps*

<b>Pied-billed Grebe</b>	<b>NY Legal Status:</b> Threatened	<b>NYS Rank:</b> S3B,S1N - Vulnerable	Office Use 10636
	<b>Federal Listing:</b>	<b>Global Rank:</b> G5 - Demonstrably secure	ESU
	<b>Last Report:</b> **	<b>EO Rank:</b> **	
	<b>County:</b> Erie		
	<b>Town:</b> City Of Buffalo		
	<b>Location:</b> At, or in the vicinity of, the project site.		
	<b>Directions:</b> **		
	<b>General Quality and Habitat:</b> **For information on the population at this location and management considerations, please contact the NYS DEC Regional Wildlife Manager for the Region where the project is located, or the NYS DEC Endangered Species Unit at 518-402-8859.		

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### CRAYFISH and AMPHIPODS

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**Cambarus diogenes**

<b>Devil Crawfish</b>	<b>NY Legal Status:</b> Unlisted	<b>NYS Rank:</b> S2 - Imperiled	Office Use 12691
	<b>Federal Listing:</b>	<b>Global Rank:</b> G5 - Demonstrably secure	
	<b>Last Report:</b> 2007-07-07	<b>EO Rank:</b> Extant	
	<b>County:</b> Erie		
	<b>Town:</b> City Of Buffalo		
	<b>Location:</b> Tiff Farm Marsh		
	<b>Directions:</b> From downtown Buffalo and northern sections of the city, follow Route 5 (Skyway) west. Take the Tiff Street Exit. Turn left onto Tiff Street, go through the underpass, and immediately turn left. Continue to the Tiff Nature Preserve Entrance, within one half mile on the right. Park and walk on the main trail and take a left at "Nettle Rd". Take "Rabbit Run" to the viewing area from the north road. The burrows were observed just off the boardwalk over Lisa Pond adjacent to flat, wooden boards .		
<b>General Quality and Habitat:</b>	The rank is based on NatureServe's draft Proposed Generic Ranking Definitions for Animals and Plants of September 22, 2007. The crayfish appear to have persisted for over twenty years at Lisa Pond and many sightings were reported at Beth Pond in the 1980s. Additional survey work could determine a population estimate and the extent of the occurrence. While the immediate area is on protected land, the habitat appears degraded and the surrounding landscape is industrial with roads and a powerline corridor. The area is a reclaimed cattail marsh and Lisa Pond is most likely man-made and appears degraded. Cattails, herbaceous plants, sedges, and shrubs were present. A deer was observed browsing in the pond perimeter and pond dwelling odonates ( <i>Plathemis lydia</i> and <i>Anax junius</i> ) were observed.		

**FISH**

***Moxostoma duquesnei***

<b>Black Redhorse</b>	<b>NY Legal Status:</b> Special Concern	<b>NYS Rank:</b> S2 - Imperiled	Office Use 11793
	<b>Federal Listing:</b>	<b>Global Rank:</b> G5 - Demonstrably secure	
	<b>Last Report:</b> 2003-07-01	<b>EO Rank:</b> Extant	
	<b>County:</b> Erie		
	<b>Town:</b> West Seneca		
	<b>Location:</b> Buffalo River Winchester		
	<b>Directions:</b> From Gardenville, go northwest on Route 354 to the intersection with Route 240. Go south on Route 240 for approximately 0.1 miles to the Buffalo River crossing. The fish were found in the river on the west side of the road.		
<b>General Quality and Habitat:</b>	The fish were observed in a moderate flowing stream with a pH of 8.1 and cobble, sand, gravel, and silt substrate. The shoreline is scrub and rip rap. The stream has 0-25 percent cover, 0-20 percent instream shelter, and no vegetation. The stream width is 100 feet. The maximum depth is 8 feet. The mean depth is 2.2 feet, based on a visual estimate.		

**FRESHWATER MUSSELS**

***Leptodea fragilis***

<b>Fragile Papershell</b>	<b>NY Legal Status:</b> Unlisted	<b>NYS Rank:</b> S3 - Vulnerable	Office Use 9506
	<b>Federal Listing:</b>	<b>Global Rank:</b> G5 - Demonstrably secure	
	<b>Last Report:</b> 1990-07-26	<b>EO Rank:</b> Fair or Poor	
	<b>County:</b> Erie		
	<b>Town:</b> West Seneca, Cheektowaga		
	<b>Location:</b> Buffalo River And Cayuga Creek		
	<b>Directions:</b> Mussels were found east of Buffalo in the Buffalo River and Cayuga Creek. Buffalo River: From the intersection of Clinton Street (Route 354) and Harlem Road (Route 240), go south approximately 0.1 miles to the bridge over the Buffalo River. Park on the southeast side of the bridge. The mussels were found west of the bridge in a slow moving pool with sand and gravel. Cayuga Creek: From the intersection of Clinton Street and Harlem Street, go 0.2 miles east on Clinton Street to the bridge.		
<b>General Quality and Habitat:</b>	The habitat is highly degraded. It is not likely that this species is doing well reproductively. Mussels were found in the Buffalo River and Cayuga Creek. The Buffalo River is 30-50 meters wide running over a steep cobbly riffle into a long, slow pool. The water is turbid and trash is present. There is obvious disturbance to the river banks. Associated species: <i>Simpsonia ambigua</i> , <i>Lasmigona compressa</i> , and <i>Potamilus alatus</i> . Cayuga Creek is a medium-size creek that is 20-40 feet wide and 6 inches to 4 feet deep. The current is slow to moderate. Both banks are lined with hardwoods. Associated species: <i>Potamilus alatus</i> .		



Natural Heritage Report on Rare Species and Ecological Communities



*Potamilus alatus*

Pink Heelsplitter

**NY Legal Status:** Unlisted

**NYS Rank:** S2S3 - Imperiled

Office Use  
8281

**Federal Listing:**

**Global Rank:** G5 - Demonstrably secure

**Last Report:** 1987-1990

**EO Rank:** Fair or Poor

**County:** Erie

**Town:** West Seneca, Cheektowaga

**Location:** Buffalo River And Cayuga Creek

**Directions:** Mussels were found east of Buffalo in the Buffalo River and Cayuga Creek. Buffalo River: From the intersection of Clinton Street (Route 354) and Harlem Road (Route 240), go south approximately 0.1 miles to the bridge over the Buffalo River. Park on the southeast side of the bridge. The mussels were found west of the bridge in a slow moving pool with sand and gravel. Cayuga Creek: From the intersection of Clinton Street and Harlem Street, go 0.2 miles east on Clinton Street to the bridge.

**General Quality and Habitat:** The habitat is highly degraded. It is not likely that this species is doing well reproductively. Mussels were found in the Buffalo River and Cayuga Creek. The Buffalo River is 30-50 meters wide running over a steep cobbly riffle into a long, slow pool. The water is turbid and trash is present. There is obvious disturbance to the river banks. Associated species: *Simpsonia ambigua*, *Leptodea fragilis*, and *Lasmigona compressa*. Cayuga Creek is a medium-size creek that is 20-40 feet wide and 6 inches to 4 feet deep. The current is slow to moderate. Both banks are lined with hardwoods. Associated species: *Leptodea fragilis*.

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6 Records Processed

More detailed information about many of the rare and listed animals and plants in New York, including biology, identification, habitat, conservation, and management, are available online in Natural Heritage's Conservation Guides at [www.acris.nynhp.org](http://www.acris.nynhp.org), from NatureServe Explorer at <http://www.natureserve.org/explorer>, from NYSDEC at <http://www.dec.ny.gov/animals/7494.html> (for animals), and from USDA's Plants Database at <http://plants.usda.gov/index.html> (for plants).

More detailed information about many of the natural community types in New York, including identification, dominant and characteristic vegetation, distribution, conservation, and management, is available online in Natural Heritage's Conservation Guides at [www.acris.nynhp.org](http://www.acris.nynhp.org). For descriptions of all community types, go to <http://www.dec.ny.gov/animals/29384.html> and click on DRAFT--Ecological Communities of New York State.

# Natural Heritage Report on Rare Species and Ecological Communities



NY Natural Heritage Program, NYS DEC, 625 Broadway, 5th Floor,  
Albany, NY 12233-4757  
(518) 402-8935

## HISTORICAL RECORDS

The following plants and animals were documented in the vicinity of the project site at one time, but have not been documented there since 1979 or earlier.

There is no recent information on these plants and animals in the vicinity of the project site and their current status there is unknown. In most cases the precise location of the plant or animal in this vicinity at the time it was last documented is also unknown and therefore location maps are generally not provided.

If appropriate habitat for these plants or animals is present in the vicinity of the project site, it is possible that they may still occur there.

## Natural Heritage Report on Rare Species and Ecological Communities



### BIRDS

#### *Chlidonias niger*

##### Black Tern

**NY Legal Status:** Endangered

**Federal Listing:**

**Last Report:** 1970s-late

**County:** Erie

**Town:** City Of Buffalo

**Location:** Tiff Farm Marsh

**Directions:** The terns were observed at Tiff Farm Nature Preserve, about 3 mi south of downtown Buffalo. From Route 5 (Fuhrmann Boulevard Expressway) going south, take the Tiff Street exit, and before Tiff Street, turn left underneath Route 5 on Feeder Road. From Route 5 going north, take the Ohio Street exit on the Feeder Road. Proceed 0.3 mi north along Feeder Road to the parking lot on the right.

**General Quality and Habitat:** Nesting has not been reported since the late 1970s. The terns were observed at an extensive cattail marsh and open water complex, on a former solid waste transfer site, which is now managed as a nature preserve and environmental education center. The largest pond is directly connected to Lake Erie by a culvert under Fuhrmann Boulevard.

**NYS Rank:** S2B - Imperiled

**Global Rank:** G4 - Apparently secure

**EO Rank:** Historical, no recent information

Office Use

1610

ESU

1 Records Processed

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## USERS GUIDE TO NY NATURAL HERITAGE DATA

New York Natural Heritage Program, 625 Broadway, 5<sup>th</sup> Floor, Albany, NY 12233-4757 phone: (518) 402-8935



**NATURAL HERITAGE PROGRAM:** The NY Natural Heritage Program is a partnership between the NYS Department of Environmental Conservation (NYS DEC) and The Nature Conservancy. Our mission is to enable and enhance conservation of rare animals, rare plants, and significant communities. We accomplish this mission by combining thorough field inventories, scientific analyses, expert interpretation, and the most comprehensive database on New York's distinctive biodiversity to deliver the highest quality information for natural resource planning, protection, and management.

**DATA SENSITIVITY:** The data provided in the report are ecologically sensitive and should be treated in a sensitive manner. The report is for your in-house use and should **not** be released, distributed or incorporated in a public document without prior permission from the Natural Heritage Program.

**EO RANK:** A letter code for the quality of the occurrence of the rare species or significant natural community, based on population size or area, condition, and landscape context.

- A-E = Extant: A=Excellent, B=Good, C=Fair, D=Poor, E=Extant but with insufficient data to assign a rank of A-D.
- F = Failed to find. Did not locate species during a limited search, but habitat is still there and further field work is justified.
- H = Historical. Historical occurrence without any recent field information.
- X = Extirpated. Field/other data indicates element/habitat is destroyed and the element no longer exists at this location.
- U = Extant/Historical status uncertain.
- Blank = Not assigned.

**LAST REPORT:** The date that the rare species or significant natural community was last observed at this location, as documented in the Natural Heritage databases. The format is most often YYYY-MM-DD.

### NY LEGAL STATUS – Animals:

Categories of Endangered and Threatened species are defined in New York State Environmental Conservation Law section 11-0535. Endangered, Threatened, and Special Concern species are listed in regulation 6NYCRR 182.5.

**E - Endangered Species:** any species which meet one of the following criteria:

- Any native species in imminent danger of extirpation or extinction in New York.
- Any species listed as endangered by the United States Department of the Interior, as enumerated in the Code of Federal Regulations 50 CFR 17.11.

**T - Threatened Species:** any species which meet one of the following criteria:

- Any native species likely to become an endangered species within the foreseeable future in NY.
- Any species listed as threatened by the U.S. Department of the Interior, as enumerated in the Code of the Federal Regulations 50 CFR 17.11.

**SC - Special Concern Species:** those species which are not yet recognized as endangered or threatened, but for which documented concern exists for their continued welfare in New York. Unlike the first two categories, species of special concern receive no additional legal protection under Environmental Conservation Law section 11-0535 (Endangered and Threatened Species).

**P - Protected Wildlife** (defined in Environmental Conservation Law section 11-0103): wild game, protected wild birds, and endangered species of wildlife.

**U - Unprotected** (defined in Environmental Conservation Law section 11-0103): the species may be taken at any time without limit; however a license to take may be required.

**G - Game** (defined in Environmental Conservation Law section 11-0103): any of a variety of big game or small game species as stated in the Environmental Conservation Law; many normally have an open season for at least part of the year, and are protected at other times.

### NY LEGAL STATUS – Plants:

The following categories are defined in regulation 6NYCRR part 193.3 and apply to NYS Environmental Conservation Law section 9-1503.

**E - Endangered Species:** listed species are those with:

- 5 or fewer extant sites, or
- fewer than 1,000 individuals, or
- restricted to fewer than 4 U.S.G.S. 7 ½ minute topographical maps, or
- species listed as endangered by U.S. Dept. of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

**T - Threatened:** listed species are those with:

- 6 to fewer than 20 extant sites, or
- 1,000 to fewer than 3,000 individuals, or
- restricted to not less than 4 or more than 7 U.S.G.S. 7 and ½ minute topographical maps, or
- listed as threatened by U.S. Department of Interior, as enumerated in Code of Federal Regulations 50 CFR 17.11.

**R - Rare:** listed species have:

- 20 to 35 extant sites, or
- 3,000 to 5,000 individuals statewide.

**V - Exploitably vulnerable:** listed species are likely to become threatened in the near future throughout all or a significant portion of their range within the state if causal factors continue unchecked.

**U - Unprotected;** no state status.

**FEDERAL STATUS (PLANTS and ANIMALS):** The categories of federal status are defined by the United States Department of the Interior as part of the 1974 Endangered Species Act (see Code of Federal Regulations 50 CFR 17). The species listed under this law are enumerated in the Federal Register vol. 50, no. 188, pp. 39526 - 39527. The codes below without parentheses are those used in the Federal Register. The codes below in parentheses are created by Heritage to deal with species which have different listings in different parts of their range, and/or different listings for different subspecies or varieties.

(blank) = No Federal Endangered Species Act status.

LE = Formally listed as endangered.

LT = Formally listed as threatened.

C = Candidate for listing.

LE,LT = Formally listed as endangered in part of its range, and as threatened in the other part; or, one or more subspecies or varieties is listed as endangered, and the others are listed as threatened.

LT,PDL = Populations of the species in New York are formally listed as threatened, and proposed for delisting.

**GLOBAL AND STATE RANKS** (animals, plants, ecological communities and others): Each element has a global and state rank as determined by the NY Natural Heritage Program. These ranks carry no legal weight. The global rank reflects the rarity of the element throughout the world and the state rank reflects the rarity within New York State. Intraspecific taxa are also assigned a taxon rank to reflect the infraspecific taxon's rank throughout the world. ? = Indicates a question exists about the rank. Range ranks, e.g. S1S2, indicate not enough information is available to distinguish between two ranks.

#### GLOBAL RANK:

**G1 - Critically imperiled** globally because of extreme rarity (5 or fewer occurrences), or very few remaining acres, or miles of stream) or especially vulnerable to extinction because of some factor of its biology.

**G2 - Imperiled** globally because of rarity (6 - 20 occurrences, or few remaining acres, or miles of stream) or very vulnerable to extinction throughout its range because of other factors.

**G3 - Vulnerable:** Either rare and local throughout its range (21 to 100 occurrences), or found locally (even abundantly at some of its locations) in a restricted range (e.g. a physiographic region), or vulnerable to extinction throughout its range because of other factors.

**G4 - Apparently secure** globally, though it may be quite rare in parts of its range, especially at the periphery.

**G5 - Demonstrably secure** globally, though it may be quite rare in parts of its range, especially at the periphery.

**GH - Historically known**, with the expectation that it might be rediscovered.

**GX - Species believed to be extinct.**

#### NYS RANK:

**S1 - Critically imperiled:** Typically 5 or fewer occurrences, very few remaining individuals, acres, or miles of stream, or some factor of its biology making it especially vulnerable in New York State.

**S2 - Imperiled:** Typically 6 to 20 occurrences, few remaining individuals, acres, or miles of stream, or factors demonstrably making it very vulnerable in New York State.

**S3 - Vulnerable:** Typically 21 to 100 occurrences, limited acreage, or miles of stream in New York State.

**S4 - Apparently secure** in New York State.

**S5 - Demonstrably secure** in New York State.

**SH - Historically known** from New York State, but not seen in the past 15 years.

**SX - Apparently extirpated** from New York State.

SxB and SxN, where Sx is one of the codes above, are used for migratory animals, and refer to the rarity within New York State of the breeding (B)populations and the non-breeding populations (N), respectively, of the species.

**TAXON (T) RANK:** The T-ranks (T1 - T5) are defined the same way as the Global ranks (G1 - G5), but the T-rank refers only to the rarity of the subspecific taxon.

T1 through T5 - See Global Rank definitions above.

Q - Indicates a question exists whether or not the taxon is a good taxonomic entity.

Revised April.