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*Soil and Groundwater  
Management Plan*  
**Brownfield Cleanup Program  
110 Luther Avenue Site  
110 Luther Avenue, Liverpool,  
Onondaga County, New York**

BCP Site # C734118

March 2011



**SOIL AND GROUNDWATER MANAGEMENT PLAN  
BROWNFIELD CLEANUP PROGRAM  
110 LUTHER AVENUE SITE  
110 LUTHER AVENUE, LIVERPOOL,  
ONONDAGA COUNTY, NEW YORK**

BCP Site # C734118

Prepared for  
**SYRACUSE LABEL COMPANY, INC.**  
Liverpool, New York

Prepared by  
**S&W Redevelopment**  
of North America, LLC  
430 East Genesee Street  
Syracuse, New York 13202

March 2011

Project No. N9013

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## **1. BACKGROUND AND PURPOSE**

Syracuse Label Company, Inc. is planning to expand its manufacturing facility located at 110 Luther Avenue, in the Town of Salina, Onondaga County, New York. The property on which the facility is located was accepted into the New York State Brownfield Cleanup Program (BCP) on September 11, 2009 (BCP Site No. C734118), and is referred to as the 110 Luther Ave. BCP site (Figure 1). Syracuse Label is scheduled to complete a facility expansion as part of a plan that includes a building addition and the purchase of new equipment in support of the company's growth. The ongoing and future use of the site will be for industrial activities.

The facility expansion will be concurrent with BCP site remedial investigation and remediation activities. Remedial investigation has not identified specific contaminant "source" areas, to date, except for groundwater contamination located in the central portion of the site. However, based on the historic industrial uses of the site, the potential to encounter impacted soil during site redevelopment activities could exist. Therefore, a plan is needed to guide the management of impacted soil and groundwater that may be encountered during site redevelopment. The purpose of this document is to establish the procedure for identifying and managing contaminated soil and groundwater during activities that are not part of the remediation of the site. All work will be completed in accordance with an appropriate Site Health and Safety Plan (SHSP) prepared by the individual or entity performing the work. An example SHSP is included in the NYSDEC approved Remedial Investigation Work Plan (SWRNA, October 2009). This Soil and Groundwater Management Plan document will be used specifically for the facility expansion activities and is independent of a Final Site Management Plan (SMP) required for the issuance of the Certificate of Completion (COC).

## **2. SUMMARY OF REMEDIAL INVESTIGATION FINDINGS**

A Remedial Investigation Report was prepared to summarize the results of Remedial Investigation (RI) activities completed at the 110 Luther Ave. BCP Site between late 2009 and November 2010. The Remedial Investigation Report was submitted to the New York State Department and Environmental Conservation (NYSDEC) in January 2011, and is currently under review by NYSDEC. During the course of the RI, seven (7) soil borings, three (3) groundwater monitoring wells, and four (4) soil vapor wells<sup>1</sup> were installed and

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<sup>1</sup> Four soil vapor wells were installed, however, samples were only taken from the two offsite wells. Soil vapor samples could not be taken from onsite soil vapor wells due to the presence of groundwater in the well.



sampled to characterize environmental conditions present onsite and offsite. Groundwater samples were also taken from thirteen (13) groundwater monitoring wells that were previously installed onsite. Analytical results are summarized in tables included in the RI report, and selected tables (summarized below) are attached for reference (Attachment A):

- Table 2-1: C&H Engineers Soil Sample Analytical Results
- Table 2-2: C&H Engineers Soil Sample Analytical Results
- Table 2-3: Utility Excavation Soil Sample Analytical Results
- Table 2-5: Beardsley Design Associates Soil and Groundwater Sample Analytical Results
- Table 4-2: Soil Sample Analytical Results
- Table 4-4: Groundwater Sample Analytical Results
- Table 4-5: Soil Vapor Sample Analytical Results

Laboratory analytical results of soil samples identified volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals, but concentrations were below Industrial Use Soil Cleanup Objectives (SCOs). Detected concentrations of one VOC (acetone in soil samples from TB-1 and TB-2) and two metals (chromium and nickel in soil sample from SB-1) marginally exceed Unrestricted Use SCOs. Figure 2 shows that soils that exceed Unrestricted Use SCOs may be encountered in the vicinity of the former trench drain in the central/eastern portion of the site, and in an isolated area around SB-1 located in the parking area in the southern portion of the site. Based on the findings of the RI it was determined that soil does not appear to be a source of significant contamination at the site.

Laboratory analytical results of groundwater samples identified metals, SVOCs, and VOCs at concentrations that exceeded Class GA water quality standards (Figures 3 and 4). Cadmium (sample from MW-10) was the only metal detected in excess of Class GA standards that is not a commonly occurring element, and that was not present in associated soil samples. Exceedances of Class GA water quality standards for SVOCs were limited to one sample (offsite well MW-19), and included pentachlorophenol and bis(2-ethylhexyl)phthalate. Pentachlorophenol was not detected in any on-site groundwater samples. Bis(2-ethylhexyl)phthalate was detected in on-site groundwater samples, but concentrations did not exceed Class GA water quality standards. Exceedances of Class GA water quality standards for VOCs were fairly limited in extent, occurring mainly around the former trench drain in the eastern/central portion of the site, with relatively low, or non-detectable, concentrations outside of this area. Tetrachloroethene (PCE), trichloroethene



(TCE), cis-1,2-dichloroethene (DCE), and vinyl chloride (VC) were detected most frequently, and at the highest concentrations relative to other VOCs at the site.

Laboratory analytical results of two (2) off-site soil vapor samples identified twenty-six (26) VOCs. The majority of the VOCs detected in soil vapor were not detected in on-site groundwater. The VOCs detected in soil vapor samples from the two off-site wells that were also detected in on-site groundwater samples include: acetone, toluene, xylenes, 1,1-dichloroethane, 1,2-dichloroethane, methylene chloride, PCE, TCE, cis-DCE, trans-DCE, and VC. Soil vapor from the two (2) on-site wells could not be sampled due to the presence of groundwater in the soil vapor wells. The presence of groundwater in the on-site soil vapor wells limits the potential for soil vapor issues since little void space exists. However, since groundwater beneath the site contains VOC contamination, soil vapor intrusion is still a potential issue.

### **3. MANAGEMENT OF SOIL**

The purpose of this section is to provide guidelines for management of soil during the course of the facility expansion activities. The Community Air Monitoring Plan (CAMP) included in the approval Remedial Investigation Workplan will be implemented during intrusive activities completed as part of the building expansion.

- A. Soil Reuse.** Pursuant to the exceptions identified under 6 NYCRR Part 360-7.1(b), all “recognizably uncontaminated” soil encountered during the facility expansion will be used onsite as fill material. All soils will be presumed uncontaminated in the absence of records, existing data, knowledge, or observations to the contrary.

A field inspector will determine which soils are “recognizably uncontaminated” based on physical observations (e.g. staining, odors, PID readings). A field inspector will take regular PID readings of exposed or excavated soils during facility expansion activities. The field inspector will maintain a daily log documenting daily work areas, work activities, field observations, and approximate areas of impact, if any exist. “Recognizably uncontaminated” soil may be reused on-site as part of the planned facility expansion. Recognizably uncontaminated soils will be staged on and covered with polyethylene sheeting or in lined containers; sampled; and analyzed prior to reuse on-site or disposal off-site. Sampling frequency will be as outlined in Subsection B – Potentially Impacted Soil Management. If soils are to be reused on-



site they must be placed under the building slab or asphalt pavement and meet the requirements of Part 375-3.8 (e) (4) (c) for industrial use site.

If soils are to be reused at an off-site location, sampling requirements will be in accordance with Subsection B – Potentially Impacted Soil Management, and comparison to Unrestricted Use Soil Cleanup Objectives (SCOs).

## **B. Potentially Impacted Soil Management**

During excavation of potentially contaminated soils, the Community Air Monitoring Plan (CAMP), as included in the approval Remedial Investigation Workplan, will be implemented. If the field personnel deems that physical observations (i.e. staining or odors or PID readings >10ppm) of soil encountered during redevelopment activities indicate the potential for contamination to exist, then a representative sample of in place or excavated soil will be collected, stored at less than 4 degrees Celsius, and sent to a NYS ELAP-certified laboratory to be analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) by Environmental Protection Agency (EPA) Method 8260B, TCL semi-volatile organic compounds (SVOCs) by EPA Method 8270D, polychlorinated biphenyls (PCBs) by EPA Method 8082A, and target analyte list (TAL) metals by EPA Method 6010/7470/7471. If, based on the laboratory results, the soil does not exceed Industrial Use soil cleanup objectives (SCOs)<sup>2</sup>, the soil may be left in place or reused onsite as fill if placed below the building slab or asphalt pavement. Conversely, if the soil exceeds Industrial Use SCOs<sup>2</sup>, the soil will be excavated and staged, or remain staged on and covered with polyethylene sheeting or in lined containers and, depending on the concentration, either:

- The material will be further characterized (see Section 2C below) and disposed of at an off-site permitted facility, or
- The results of the analysis will be reviewed with the NYSDEC to determine if the material can be reused as onsite fill below a soil cover engineering control (i.e building slab, asphalt pavement or 12" of soil).

In the case where impacted soil is excavated based on field observations that indicate

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<sup>2</sup> Industrial Soil Cleanup Objectives (SCOs) for the parameters listed in 6 NYCRR Part 375-6.8(b) (December 14, 2006) and in TAGM 4046 for those parameters that do not have standards in Part 375-6.8(b)



it may be a potential source of ongoing contamination, the soil will be excavated to the point that field observations indicate it is not likely a contaminant source and documentation samples will be taken. The number of samples will be dependent on the size of the excavation. In general one (1) sample will be taken for every 30 linear feet of sidewall, and one (1) sample will be taken from the floor of the excavation for every 900 square feet of bottom area. This sample frequency may be modified with NYSDEC approval for excavations that are less than 30-feet in perimeter or greater than 300-feet in perimeter. If field conditions dictate or based on the requirement of the NYSDEC, additional sampling and/or analysis may be required to appropriately document the soil characteristics. The documentation samples collected will be analyzed for TCL VOCs, TCL SVOCs, PCBs, and TAL metals using the EPA Methods discussed above. The excavation and documentation soil sample locations will be staked and surveyed. The area will be backfilled with acceptable material and graded to promote positive drainage. The daily field logs, analytical data, and the location of impacted soil and/or source material excavation activities and sample locations will be included in the Final Engineering Report (FER).

### **C. Contaminated Soil Offsite Disposal.**

Excavated soil that is deemed to be contaminated and will not to be used as fill at the site will be transported off-site for proper disposal at a permitted facility within 60 days of excavation. While awaiting off-site transport the soil will be staged, or remain staged, on and covered with polyethylene sheeting or in lined containers. A representative sample of the material will be taken and analyzed in accordance with the permitted disposal facility characterization requirements, and may include Toxicity Characteristic Leaching Procedure (TCLP), TCL VOCs, TCL SVOCs, PCBs, and TAL Metals using the EPA Methods discussed in Sub-Section B above.

If the analytical results indicate that concentrations exceed the standards for RCRA characteristics or if the excavated soil is deemed a listed hazardous waste the material will be properly disposed off-site at a permitted disposal facility within 60 days of excavation. The specific procedure for handling and management of characteristic or listed hazardous waste soil will be addressed in a separate plan.



#### D. Imported Soil.

Soil imported to the site for use as a soil cover, or as excavation backfill must meet the requirements of 6 NYCRR 375-6.7(d), and must:

- comply with any RAOs identified for the soil cover,
- be free of extraneous debris or solid waste,
- be soil or other unregulated material as set forth in 6 NYCRR Part 360.

For soil material imported from a virgin source permitted by the NYSDEC a minimum of one round of characterization samples will be collected, or a certification from the source owner indicating that the material is from a virgin source free from debris and contamination. The location, owner, and certification will be provided to the NYSDEC at least 3 days prior to importing fill.

Soil material imported from any other source will be sampled in accordance with Table 1 below.

| Table 1*                                                                        |                                                                                                     |                                         |                                                                                                                                         |
|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Recommended Number of Soil Samples for Soil Imported To or Exported From a Site |                                                                                                     |                                         |                                                                                                                                         |
| Contaminant                                                                     | VOCs                                                                                                | SVOCs, Inorganics, PCBs, and Pesticides |                                                                                                                                         |
| Soil Quantity<br>(cubic yards)                                                  | Discrete Samples                                                                                    | Composite Samples                       | Discrete Samples /<br>Composite Samples                                                                                                 |
| 0 – 50                                                                          | 1                                                                                                   | 1                                       | 3 – 5 discrete samples<br>from different locations<br>in the fill being provided<br>will comprise a<br>composite sample for<br>analysis |
| 50 – 100                                                                        | 2                                                                                                   | 1                                       |                                                                                                                                         |
| 100 – 200                                                                       | 3                                                                                                   | 1                                       |                                                                                                                                         |
| 200 – 300                                                                       | 4                                                                                                   | 1                                       |                                                                                                                                         |
| 300 – 400                                                                       | 4                                                                                                   | 2                                       |                                                                                                                                         |
| 400 – 500                                                                       | 5                                                                                                   | 2                                       |                                                                                                                                         |
| 500 – 800                                                                       | 6                                                                                                   | 2                                       |                                                                                                                                         |
| 800 – 1000                                                                      | 7                                                                                                   | 2                                       |                                                                                                                                         |
| > 1000                                                                          | Add an additional 2 VOC and 1 Composite for each additional 1000 cubic yards<br>or consult with DER |                                         |                                                                                                                                         |

\* Table taken from NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation



The sampling frequency identified in the table can be reduced once a trend of compliance is established and NYSDEC approves the reduction.

#### 4. MANAGEMENT OF GROUNDWATER DURING CONSTRUCTION DEWATERING

During the redevelopment of the site, the construction of the buildings may require excavations below the groundwater table which may require dewatering. Depending on the location of the excavation the groundwater encountered may have contaminants present that would not allow the water to be discharged to surface water. In general, it is anticipated that construction activities will be conducted primarily above the groundwater in a manner that will not require dewatering. In addition, stormwater run-off will be diverted from excavations. If groundwater is encountered and dewatering is required, the water will be managed in an appropriate manner to prevent the discharge of potentially impacted water to storm drains in the following manner:

- control the excavation such that groundwater can be contained within the excavation;
- create an area within the construction area to accommodate collection of groundwater by pumping from the excavation into tanks, sample and analyze the water to characterize it then as appropriate either transport and treat off-site at a permitted facility; or if appropriate discharge to the stormwater management system in accordance with the appropriate stormwater pollution prevention plan and/or local stormwater discharge permit as may be required for the facility expansion activity.

The groundwater that is collected in tanks for subsequent management will have a representative sample taken every 5000 gallons and analyzed by a NYS ELAP-certified laboratory for the following parameters:

TCL VOCs by EPA Method 8260B,  
TCL SVOCs by EPA Method 8270D,  
PCBs by EPA Method 8082A, and  
TAL Metals by EPA Method 6010/7470/7471.

The analytical results will be reviewed with the NYSDEC to determine the appropriate method of treatment, proper disposal and/or discharge. If the analytical results exceed the NYSDEC's Surface and Groundwater Quality Standards then treatment and/or proper disposal at a permitted facility will be required. If the analytical results do not exceed the NYSDEC Surface and Groundwater Quality Standards then it may be used for dust control measures within the construction area; allowed to infiltrate into the construction excavation area; or as appropriate discharged to the stormwater management system in accordance with the appropriate stormwater pollution prevention plan and/or local stormwater discharge permit as may be required for the facility expansion activity.

## **5. REPORTING**

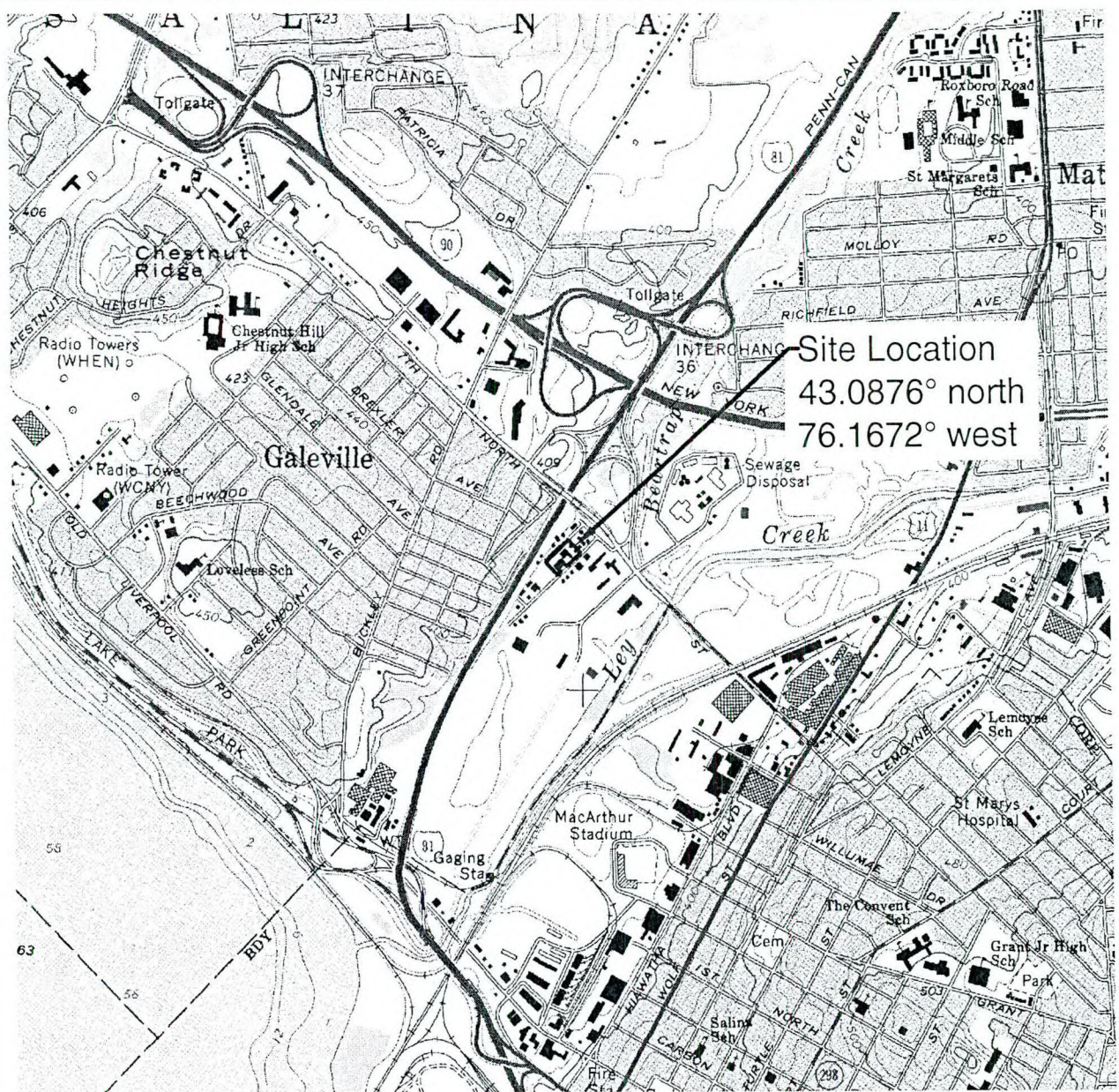
Any information collected during implementation of this Plan, including daily field logs, laboratory analytical data, location of impacted soil and/or source material excavation activities, surveyed sample locations, material disposal receipts and manifests and as-built drawings of the engineering controls associated with the facility expansion will be reported in the Final Engineering Report (FER). If the FER is not available by September 7, 2011, a separate documentation report will be submitted which will then be included in the FER when submitted.



## FIGURES



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 2010/nov/syl/lem  
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SCALE in FEET



Contour Interval: 10 Feet

Map Taken From: USGS 7.5 Minute Series  
 Topographic Quadrangle;  
 Syracuse West (1975, photorevised 1978)  
 ([www.nysgis.state.ny.us/quads/usgsdrg.htm](http://www.nysgis.state.ny.us/quads/usgsdrg.htm))



**S&W Redevelopment**  
 of North America, LLC.

Syracuse, New York

DATE: 3/2011 JOB No.: N9013

110 Luther Ave. Site (BCP Site #C734118)  
 Soil Management Plan  
 110 Luther Ave., Liverpool  
 Onondaga County, New York

Figure 1  
 Site Location



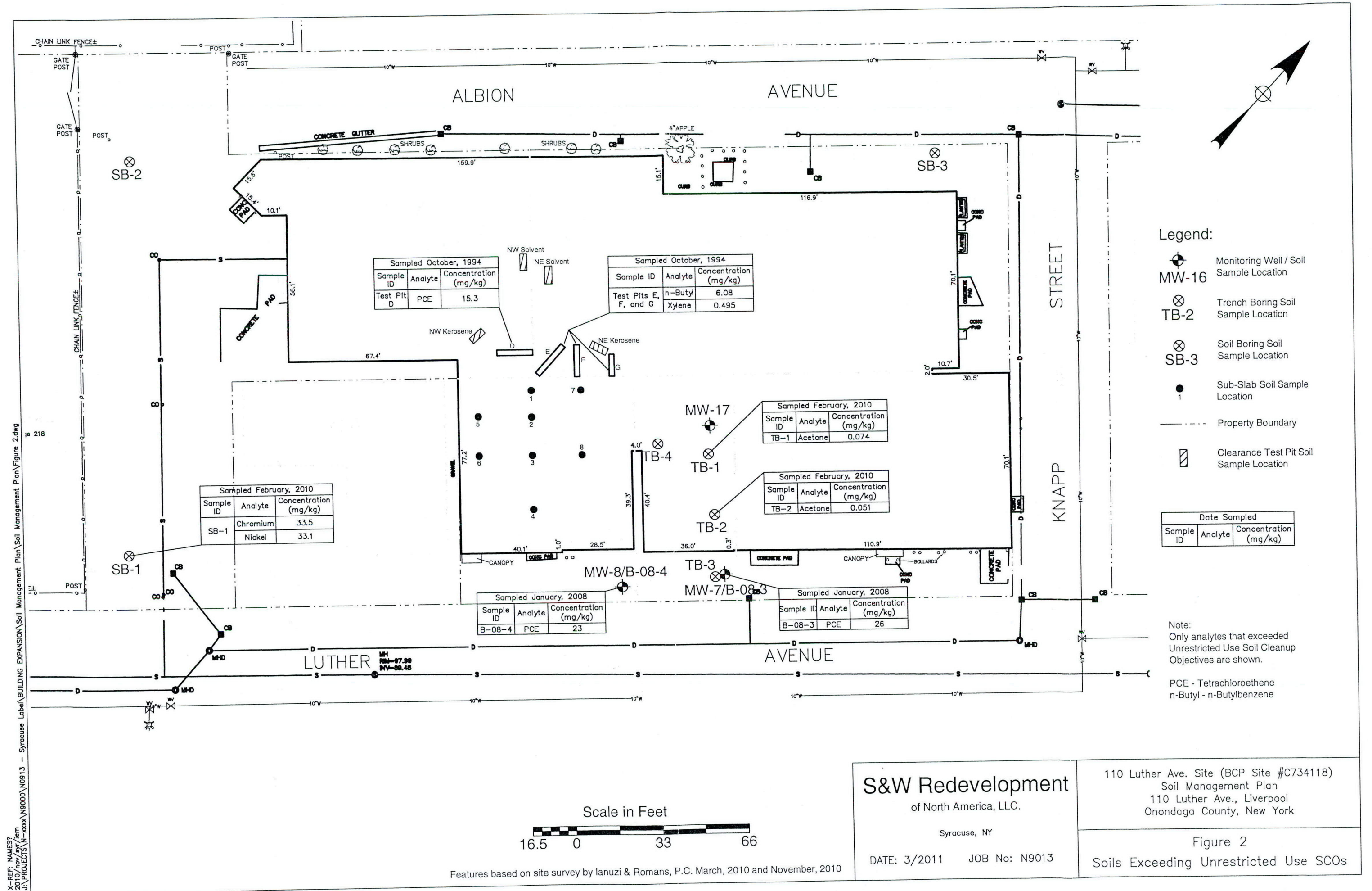
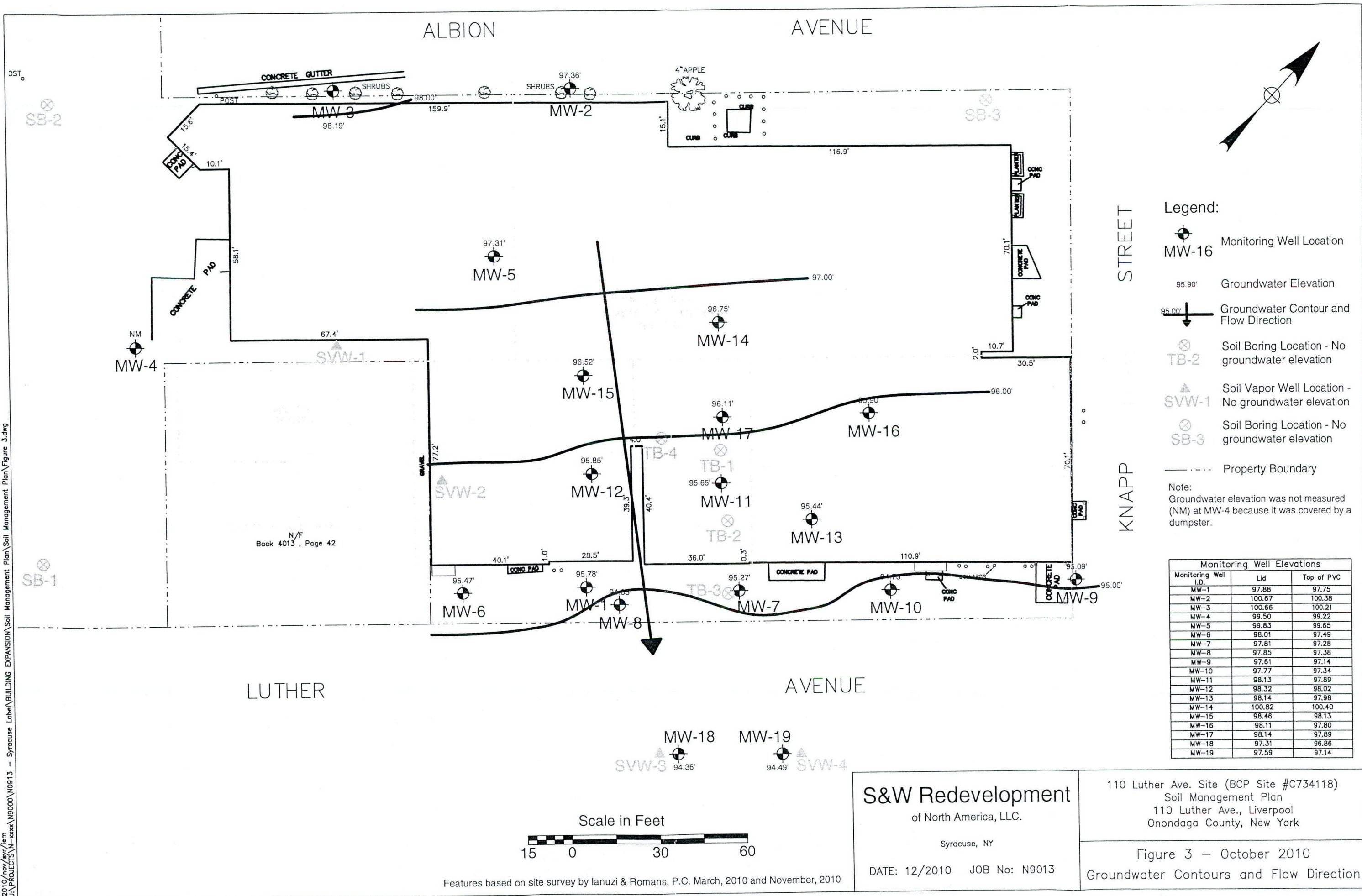


Figure 2  
Soils Exceeding Unrestricted Use SCOs

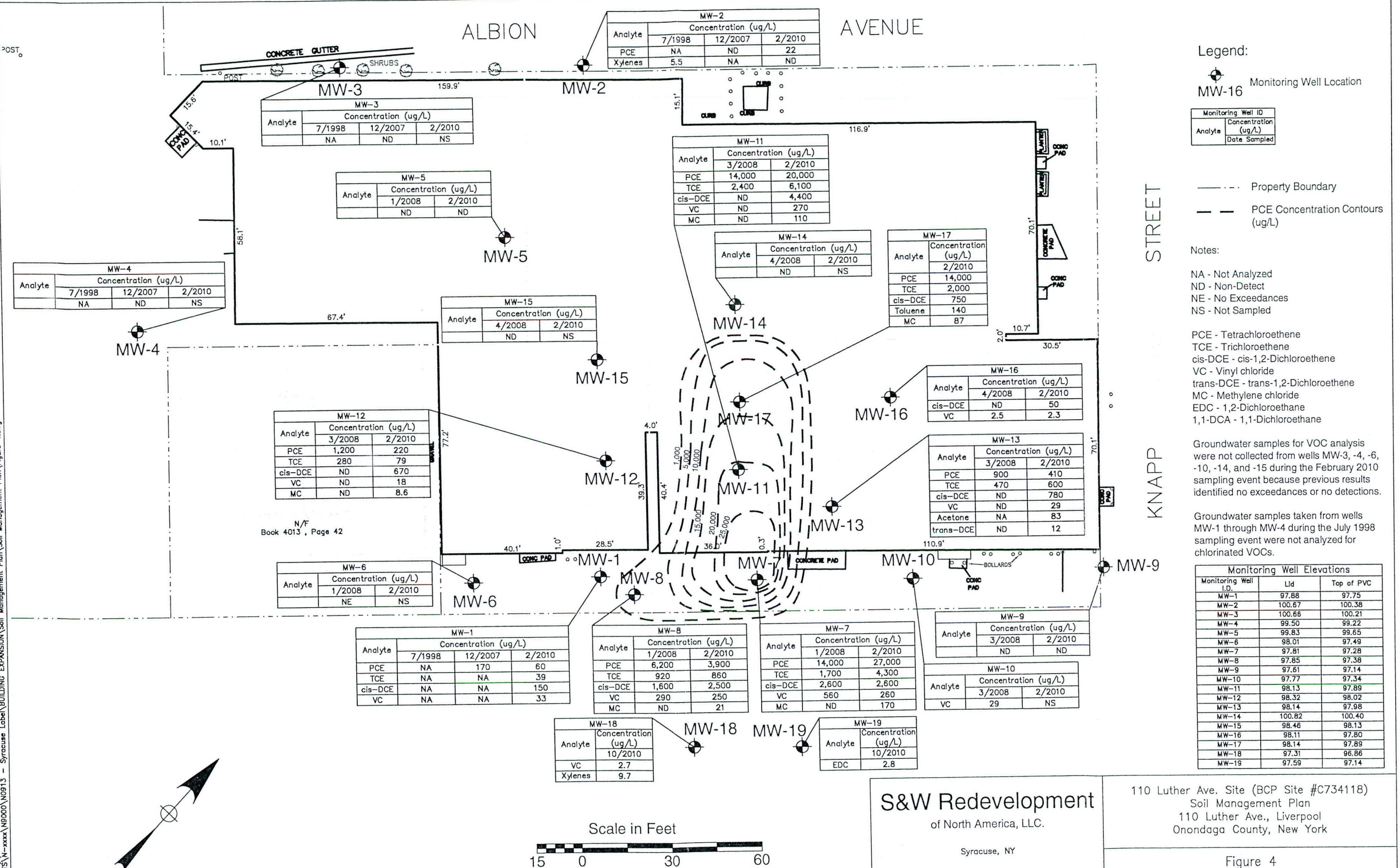


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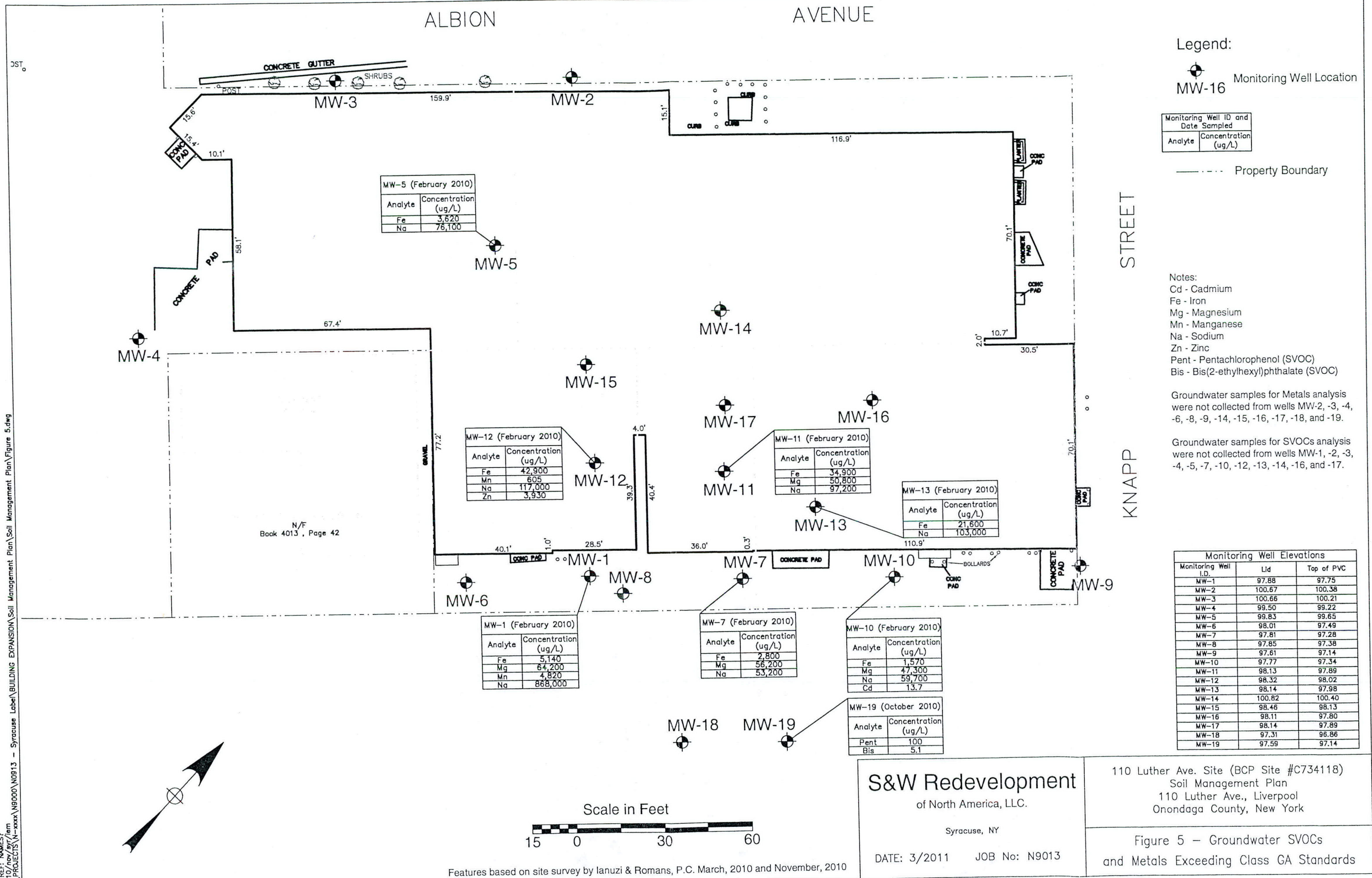


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## ATTACHMENTS



**Attachment A**  
**Tables from the Remedial**  
**Investigation Report**



Table 2-1: (Page 1 of 1) C&H Engineers Soil Sample Analytical Results. Remedial Investigation Report.  
October 1994. 110 Luther Ave, Syracuse Label.

| Analyte                  | Soil Cleanup Objectives<br>(mg/kg) |                | Sample Identification                   |                         |
|--------------------------|------------------------------------|----------------|-----------------------------------------|-------------------------|
|                          | Unrestricted<br>Use                | Industrial Use | N/E Fence Line<br>Test Pit <sup>1</sup> | Foundation <sup>2</sup> |
| Date Sampled             |                                    |                | Oct-94                                  | Oct-94                  |
| <b>Soil Detections</b>   |                                    |                |                                         |                         |
| 1,2,4-trimethylbenzene   | 3.6                                | 380            | 0.024                                   | 1.13                    |
| 1,3,5-trimethylbenzene   | 8.4                                | 380            | 0.009                                   | 0.738                   |
| anthracene               | 100                                | 1000           | ND                                      | 0.570                   |
| barium                   | 350                                | 10000          | ND                                      | ND                      |
| benzene                  | 0.06                               | 89             | ND                                      | ND                      |
| benzo(b)fluoranthene     | 1                                  | 11             | ND                                      | 0.170                   |
| chrysene                 | 1                                  | 110            | ND                                      | 0.180                   |
| cis-1,2-dichloroethene   | 0.25                               | 1000           | ND                                      | ND                      |
| ethylbenzene             | 1                                  | 780            | ND                                      | 0.478                   |
| fluoranthene             | 100                                | 1000           | ND                                      | 0.390                   |
| fluorene                 | 30                                 | 1000           | ND                                      | 0.680                   |
| isopropylbenzene         |                                    |                | ND                                      | 2.54                    |
| naphthalene              | 12                                 | 1000           | ND                                      | 1.600                   |
| n-butylbenzene           | 3.9                                | 1000           | ND                                      | 6.08^                   |
| phenanthrene             | 100                                | 1000           | ND                                      | 0.680                   |
| p-isopropyltoluene       |                                    |                | 0.0081                                  | 2.07                    |
| pyrene                   | 100                                | 1000           | ND                                      | 0.270                   |
| pyridine                 |                                    |                | ND                                      | ND                      |
| sec-butylbenzene         | 11                                 | 1000           | 0.0139                                  | ND                      |
| tetrachloroethene        | 1.3                                | 300            | 15.3^                                   | ND                      |
| toluene                  | 0.7                                | 1000           | ND                                      | ND                      |
| total glycols            |                                    |                | ND                                      | ND                      |
| total xylenes (o,m,p)    | 0.26                               | 1000           | ND                                      | 0.495^                  |
| trans-1,2-dichloroethene | 0.19                               | 1000           | ND                                      | ND                      |
| trichloroethane          | 0.47                               | 400            | 0.281                                   | ND                      |
| <b>totals</b>            |                                    |                | 0.336                                   | 11.496                  |

ND - None detected greater than detection limit

1 - Soil sample collected from test pit D on Figure 2-2

2 - Soil sample collected from test pits E, F, and G on Figure 2-2

Data compiled from C&H Engineers July 1992 Phase I Environmental Assessment Report

^ - indicates an exceedance of Unrestricted Use SCOs

**Bold and boxed results indicate an exceedance of Industrial Use SCOs**

Industrial Use and Unrestricted Use Soil Cleanup Objectives from 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 2006).



Table 2-2: (Page 1 of 2) C&H Engineers Soil Sample Analytical Results. Remedial Investigation Report. November 1994 - June 1995. 110 Luther Ave, Syracuse Label.

| Analyte                  | Soil Cleanup Objectives (mg/kg) |                | Sample Identification |                               |                               |                                |                                |          |                        |                        |        |        |
|--------------------------|---------------------------------|----------------|-----------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|----------|------------------------|------------------------|--------|--------|
|                          | Unrestricted Use                | Industrial Use | Sub-Slab              | NW Solvent Clearance Test Pit | NE Solvent Clearance Test Pit | NW Kerosene Clearance Test Pit | NE Kerosene Clearance Test Pit | Deep pit | Staged Soil North Pile | Staged Soil South Pile | S-1    | S-2    |
| Date Sampled             |                                 |                | Nov-94                | Dec-94                        | Dec-94                        | Dec-94                         | Dec-94                         | Dec-94   | Feb-95                 | Feb-95                 | Jun-95 | Jun-95 |
| Soil Detections          |                                 |                |                       |                               |                               |                                |                                |          |                        |                        |        |        |
| 1,2,4-trimethylbenzene   | 3.6                             | 380            | 0.743                 |                               |                               |                                |                                |          |                        |                        |        | 0.115  |
| 1,3,5-trimethylbenzene   | 8.4                             | 380            | 0.148                 |                               |                               |                                |                                |          |                        |                        |        |        |
| anthracene               | 100                             | 1000           |                       |                               |                               |                                |                                |          | 0.57                   | 0.65                   |        |        |
| barium                   | 350                             | 10000          |                       |                               |                               |                                |                                |          |                        |                        |        |        |
| benzene                  | 0.06                            | 89             | 0.338^                |                               |                               |                                |                                |          |                        |                        |        |        |
| benzo(b)fluoranthene     | 1                               | 11             |                       |                               |                               |                                |                                |          |                        |                        |        |        |
| chrysene                 | 1                               | 110            |                       |                               |                               |                                |                                |          |                        |                        |        |        |
| cis-1,2-dichloroethene   | 0.25                            | 1000           |                       |                               |                               |                                |                                |          |                        |                        |        |        |
| ethylbenzene             | 1                               | 780            |                       |                               |                               |                                |                                |          |                        |                        |        |        |
| fluoranthene             | 100                             | 1000           |                       |                               |                               |                                |                                |          |                        |                        |        |        |
| fluorene                 | 30                              | 1000           |                       |                               |                               |                                |                                |          |                        |                        |        |        |
| isopropylbenzene         |                                 |                |                       |                               |                               |                                |                                |          |                        |                        | 0.298  | 0.402  |
| naphthalene              | 12                              | 1000           | 0.56                  |                               |                               |                                |                                |          |                        |                        | 0.55   | 0.654  |
| n-butylbenzene           | 3.9                             | 1000           | 0.52                  |                               |                               |                                |                                |          |                        |                        | 2      | 1.6    |
| phenanthrene             | 100                             | 1000           |                       |                               |                               |                                |                                |          |                        |                        |        |        |
| p-isopropyltoluene       |                                 |                | 0.151                 |                               |                               |                                |                                |          |                        |                        |        |        |
| pyrene                   | 100                             | 1000           |                       |                               |                               |                                |                                |          |                        |                        |        |        |
| pyridine                 |                                 |                |                       |                               |                               |                                |                                |          |                        |                        | 0.119  | 0.142  |
| sec-butylbenzene         | 11                              | 1000           | 0.559                 |                               |                               |                                |                                |          |                        |                        |        |        |
| tetrachloroethane        | 1.3                             | 300            |                       | 0.0049                        |                               | 0.001                          |                                | 78^      | 0.007                  |                        |        |        |
| toluene                  | 0.7                             | 1000           | 0.934^                |                               |                               |                                |                                | 1.01^    |                        |                        |        |        |
| total glycols            |                                 |                |                       |                               |                               |                                |                                |          |                        |                        |        |        |
| total xylenes (o,m,p)    | 0.26                            | 1000           |                       |                               |                               |                                |                                |          |                        |                        |        |        |
| trans-1,2-dichloroethene | 0.19                            | 1000           |                       |                               |                               |                                |                                |          |                        |                        |        |        |
| trichloroethane          | 0.47                            | 400            |                       |                               |                               |                                |                                | 0.433    |                        |                        |        |        |
| totals                   |                                 |                | 2.681                 | 0.0049                        |                               | 0.001                          |                                | 0.433    | 0.577                  | 0.65                   | 2.967  | 2.913  |

S-1 - Grab from sub-slab soil boring 4

S-2 - Composite from sub-slab soil borings 1, 2, 3, 5, and 6

Data compiled from C&H Engineers August 1995 Site Remediation Summary Report

^ - indicates an exceedance of Unrestricted Use SCOs

Bold and boxed results indicate an exceedance of Industrial Use SCOs

Industrial Use and Unrestricted Use Soil Cleanup Objectives from 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 2006).



Table 2-2: (Page 2 of 2) C&H Engineers Soil Sample Analytical Results. Remedial Investigation Report.  
November 1994 - June 1995. 110 Luther Ave, Syracuse Label.

| Analyte                       | Groundwater<br>Standard^ (ug/L) | Sample Identification          |           |                                |
|-------------------------------|---------------------------------|--------------------------------|-----------|--------------------------------|
|                               |                                 | Footer<br>Excavation<br>Liquid | Wall Seep | Groundwater<br>Collection Pipe |
| Date Sampled                  |                                 | Dec-94                         | Dec-94    | Jun-95                         |
| <b>Groundwater Detections</b> |                                 |                                |           |                                |
| sec-Butylbenzene              | 5                               |                                |           | 1.2                            |
| cis-1,2-Dichloroethene        | 5                               |                                | 0.112     | 12.8                           |
| trans-1,2-Dichloroethene      | 5                               |                                | 0.0013    |                                |
| tetrachloroethene             | 5                               |                                | 0.0087    | 1.6                            |
| trichloroethene               | 5                               |                                | 0.0295    | 3.3                            |
| total glycols                 |                                 | 0.27                           |           |                                |
| <b>totals</b>                 |                                 | 0.27                           | 0.1515    | 18.9                           |

^ - Class GA Groundwater Quality Standard or Guidance Value from New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (June 1998).

Bold and boxed cells indicate an exceedance of groundwater standards

Data compiled from C&H Engineers August 1995 Site Remediation Summary Report



Table 2-3: (Page 1 of 1) Utility Excavation Soil Sample Analytical Results.  
Remedial Investigation Report. June 1995.  
110 Luther Ave, Syracuse Label.

| Analyte                | Soil Cleanup Objectives<br>(mg/kg) |                | Sample<br>Identification               |
|------------------------|------------------------------------|----------------|----------------------------------------|
|                        | Unrestricted<br>Use                | Industrial Use | Utility Excavation<br>Staged Soil Pile |
| Date Sampled           |                                    |                | Jun-95                                 |
| <b>Soil Detections</b> |                                    |                |                                        |
| 1,2,4-trimethylbenzene | 3.6                                | 380            | 0.0122                                 |
| naphthalene            | 12                                 | 1000           | 0.0179                                 |
| n-butylbenzene         | 12                                 | 1000           | 0.0637                                 |
| p-isopropyltoluene     |                                    |                | 0.0115                                 |
| sec-butylbenzene       | 11                                 | 1000           | 0.0709                                 |
| n-propylbenzene        | 3.9                                | 1,000          | 0.0116                                 |
| totals                 |                                    |                | 0.1878                                 |

Data compiled from utility excavation laboratory report

^ - indicates an exceedance of Unrestricted Use SCOs

**Bold and boxed results indicate an exceedance of Industrial Use SCOs**

Industrial Use and Unrestricted Use Soil Cleanup Objectives from 6 NYCRR Subpart 375-6 Remedial  
Program Soil Cleanup Objectives (December 2006).



Table 2-5: (Page 1 of 2) Beardsley Design Associates Soil and Groundwater Sample Analytical Results. Remedial Investigation Report. December 2007 - April 2008. 110 Luther Ave, Syracuse Label.

| Analyte                     | Soil Cleanup Objectives (mg/kg) |                | Sample Identification |        |        |        |
|-----------------------------|---------------------------------|----------------|-----------------------|--------|--------|--------|
|                             | Unrestricted Use                | Industrial Use | B-08-1                | B-08-2 | B-08-3 | B-08-4 |
|                             |                                 |                | Jan-08                | Jan-08 | Jan-08 | Jan-08 |
| Date Sampled                |                                 |                | Jan-08                | Jan-08 | Jan-08 | Jan-08 |
| VOCs by EPA Method 8260B    |                                 |                | D.L.                  | D.L.   | D.L.   | D.L.   |
| Acetone                     | 0.05                            | 1000           | U 0.02                | U 1    | U 10   | U 10   |
| Benzene                     | 0.06                            | 89             | U 0.007               | U 0.2  | U 4    | U 4    |
| Bromodichloromethane        |                                 |                | U 0.007               | U 0.2  | U 4    | U 4    |
| Bromoform                   |                                 |                | U 0.007               | U 0.2  | U 4    | U 4    |
| Bromomethane                |                                 |                | U 0.007               | U 0.2  | U 4    | U 4    |
| 2-Butanone (MEK)            | 0.12                            | 1000           | U 0.02                | U 1    | U 10   | U 10   |
| Carbon disulfide            |                                 |                | U 0.007               | U 0.2  | U 4    | U 4    |
| Carbon tetrachloride        | 0.76                            | 44             | U 0.007               | U 0.2  | U 4    | U 4    |
| Chlorobenzene               | 1.1                             | 1000           | U 0.007               | U 0.2  | U 4    | U 4    |
| Chloroethane                |                                 |                | U 0.007               | U 0.2  | U 4    | U 4    |
| Chloroform                  | 0.37                            | 700            | U 0.007               | U 0.2  | U 4    | U 4    |
| Chloromethane               |                                 |                | U 0.007               | U 0.2  | U 4    | U 4    |
| Dibromochloromethane        |                                 |                | U 0.007               | U 0.2  | U 4    | U 4    |
| 1,1-Dichloroethane          | 0.27                            | 480            | U 0.007               | U 0.2  | U 4    | U 4    |
| 1,2-Dichloroethane          | 0.02                            | 60             | U 0.007               | U 0.2  | U 4    | U 4    |
| 1,1-Dichloroethene          | 0.33                            | 1000           | U 0.007               | U 0.2  | U 4    | U 4    |
| 1,2-Dichloroethene, Total   | 0.25                            | 1000           | U 0.007               | U 0.2  | U 4    | U 4    |
| 1,2-Dichloropropane         |                                 |                | U 0.007               | U 0.2  | U 4    | U 4    |
| cis-1,3-Dichloropropene     |                                 |                | U 0.007               | U 0.2  | U 4    | U 4    |
| trans-1,3-Dichloropropene   |                                 |                | U 0.007               | U 0.2  | U 4    | U 4    |
| Ethyl benzene               | 1                               | 780            | U 0.007               | U 0.2  | U 4    | U 4    |
| 2-Hexanone                  |                                 |                | U 0.02                | U 1    | U 10   | U 10   |
| Methylene chloride          | 0.05                            | 1000           | U 0.02                | U 1    | U 10   | U 10   |
| 4-Methyl-2-pentanone (MIBK) |                                 |                | U 0.02                | U 1    | U 10   | U 10   |
| Styrene                     |                                 |                | U 0.007               | U 0.2  | U 4    | U 4    |
| 1,1,2,2-Tetrachloroethane   |                                 |                | U 0.007               | U 0.2  | U 4    | U 4    |
| Tetrachloroethene           | 1.3                             | 300            | U 0.007               | U 0.2  | 26^    | 23^    |
| Toluene                     | 0.7                             | 1000           | U 0.007               | U 0.2  | U 4    | U 4    |
| 1,1,1-Trichloroethane       | 0.68                            | 1000           | U 0.007               | U 0.2  | U 4    | U 4    |
| 1,1,2-Trichloroethane       |                                 |                | U 0.007               | U 0.2  | U 4    | U 4    |
| Trichloroethene             | 0.47                            | 400            | U 0.007               | U 0.2  | U 4    | U 4    |
| Vinyl chloride              | 0.02                            | 27             | U 0.007               | U 0.2  | U 4    | U 4    |
| Xylenes (Total)             | 0.26                            | 1000           | U 0.007               | U 0.2  | U 4    | U 4    |
| Totals                      |                                 |                | ND                    | ND     | 26     | 23     |

D.L. - Detection limit  
U - Analyzed for but not detected above the laboratory detection limit  
Data compiled from Beardsley Design Associates April 2008 Limited Subsurface Investigation Report  
ND - Non detect  
^ - indicates an exceedance of Unrestricted Use SCOs  
Bold and boxed results indicate an exceedance of Industrial Use SCOs  
Industrial Use and Unrestricted Use Soil Cleanup Objectives from 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 2006).

| Analyte                     | GW Std^<br>(ug/L) | Sample Identification |        |        |        |
|-----------------------------|-------------------|-----------------------|--------|--------|--------|
|                             |                   | MW-5                  | MW-6   | MW-7   | MW-8   |
|                             |                   | Jan-08                | Jan-08 | Jan-08 | Jan-08 |
| Date Sampled                |                   | Jan-08                | Jan-08 | Jan-08 | Jan-08 |
| VOCs by EPA Method 8260B    |                   | D.L.                  | D.L.   | D.L.   | D.L.   |
| Acetone                     | 50                | U 10                  | U 10   | U 2000 | U 2000 |
| Benzene                     | 1                 | U 1                   | U 1    | U 200  | U 200  |
| Bromodichloromethane        | 50                | U 1                   | U 1    | U 200  | U 200  |
| Bromoform                   | 50                | U 1                   | U 1    | U 200  | U 200  |
| Bromomethane                | 5                 | U 1                   | U 1    | U 200  | U 200  |
| 2-Butanone (MEK)            | 50                | U 10                  | U 10   | U 2000 | U 2000 |
| Carbon disulfide            |                   | U 1                   | U 1    | U 200  | U 200  |
| Carbon tetrachloride        | 5                 | U 1                   | U 1    | U 200  | U 200  |
| Chlorobenzene               | 5                 | U 1                   | U 1    | U 200  | U 200  |
| Chloroethane                | 5                 | U 1                   | U 1    | U 200  | U 200  |
| Chloroform                  | 7                 | U 1                   | U 1    | U 200  | U 200  |
| Chloromethane               |                   | U 1                   | U 1    | U 200  | U 200  |
| Dibromochloromethane        | 50                | U 1                   | U 1    | U 200  | U 200  |
| 1,1-Dichloroethane          | 5                 | U 1                   | U 1    | U 200  | U 200  |
| 1,2-Dichloroethane          | 0.6               | U 1                   | U 1    | U 200  | U 200  |
| 1,1-Dichloroethene          | 5                 | U 1                   | U 1    | 2600   | 1600   |
| 1,2-Dichloroethene, Total   | 5                 | U 1                   | U 1    | U 200  | U 200  |
| 1,2-Dichloropropane         | 1                 | U 1                   | U 1    | U 200  | U 200  |
| cis-1,3-Dichloropropene     | 0.4               | U 1                   | U 1    | U 200  | U 200  |
| trans-1,3-Dichloropropene   | 0.4               | U 1                   | U 1    | U 200  | U 200  |
| Ethylbenzene                | 5                 | U 1                   | U 1    | U 200  | U 200  |
| 2-Hexanone                  | 50                | U 10                  | U 10   | U 2000 | U 2000 |
| Methylene chloride          | 5                 | U 1                   | U 1    | U 200  | U 200  |
| 4-Methyl-2-pentanone (MIBK) |                   | U 10                  | U 10   | U 2000 | U 2000 |
| Styrene                     | 5                 | U 1                   | U 1    | U 200  | U 200  |
| 1,1,2,2-Tetrachloroethane   | 5                 | U 1                   | U 1    | U 200  | U 200  |
| Tetrachloroethene           | 5                 | U 1                   | U 1    | 14000  | 6200   |
| Toluene                     | 5                 | U 1                   | U 1    | U 200  | U 200  |
| 1,1,1-Trichloroethane       | 5                 | U 1                   | U 1    | U 200  | U 200  |
| 1,1,2-Trichloroethane       | 1                 | U 1                   | U 1    | U 200  | U 200  |
| Trichloroethene             | 5                 | U 1                   | U 1    | 1700   | 920    |
| Vinyl chloride              | 2                 | U 1                   | U 1    | 560    | 290    |
| Xylenes (Total)             | 5                 | U 1                   | U 1    | U 200  | U 200  |
| Totals                      |                   | ND                    | 1.9    | 18,860 | 9,010  |

^ - Class GA Groundwater Quality Standard or Guidance Value from New York State Department of Environmental Conservation (NYSDEC) Division of Water  
Technical and Operational Guidance Series (June 1998).  
D.L. - Detection limit  
U - Analyzed for but not detected above the laboratory detection limit  
Bold and boxed cells indicate an exceedance of groundwater standards  
Data compiled from Beardsley Design Associates April 2008 Limited Subsurface Investigation Report  
ND - Non detect



Table 2-5: (Page 2 of 2) Beardsley Design Associates Soil and Groundwater Sample Analytical Results. Remedial Investigation Report. December 2007 - April 2008. 110 Luther Ave, Syracuse Label.

| Analyte                                 | GW Std <sup>^</sup><br>(ug/L) | Sample Identification |        |        |        |        |        |         |        |        |        |        |        |
|-----------------------------------------|-------------------------------|-----------------------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|
|                                         |                               | MW-1                  | MW-2   | MW-3   | MW-4   | MW-9   | MW-10  | MW-11   | MW-12  | MW-13  | MW-14  | MW-15  | MW-16  |
|                                         |                               | Dec-07                | Dec-07 | Dec-07 | Dec-07 | Mar-08 | Mar-08 | Mar-08  | Mar-08 | Mar-08 | Apr-08 | Apr-08 | Apr-08 |
| Date Sampled                            |                               |                       |        |        |        |        |        |         |        |        |        |        |        |
| Volatiles Halocarbons by EPA Method 624 |                               | D.L.                  | D.L.   | D.L.   | D.L.   | D.L.   | D.L.   | D.L.    | D.L.   | D.L.   | D.L.   | D.L.   | D.L.   |
| Bromodichloromethane                    | 50                            |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| Bromoform                               | 50                            |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| Bromomethane                            | 5                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| Carbon tetrachloride                    | 5                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| Chlorobenzene                           | 5                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| Chloroethane                            | 5                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| 2-Chloroethylvinyl ether                |                               |                       |        |        |        | U 10   | U 10   | U 10000 | U 200  | U 1000 | U 10   | U 10   | U 10   |
| Chloroform                              | 7                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| Chloromethane                           |                               |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| Dibromochloromethane                    | 50                            |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| 1,2-Dichlorobenzene                     | 3                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| 1,3-Dichlorobenzene                     | 3                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| 1,4-Dichlorobenzene                     | 3                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| Dichlorodifluoromethane                 | 5                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| 1,1-Dichloroethane                      | 5                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| 1,2-Dichloroethane                      | 0.6                           |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| 1,1-Dichloroethene                      | 5                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| trans-1,2-Dichloroethene                | 5                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| 1,2-Dichloropropane                     | 5                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| cis-1,3-Dichloropropene                 | 0.4                           |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| trans-1,3-Dichloropropene               | 0.4                           |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| Methylene chloride                      | 5                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| 1,1,2,2-Tetrachloroethane               | 5                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| Tetrachlorethene                        | 5                             | 170                   | U 1    | U 1    | U 1    | U 1    | U 1    | 14000   | 1200   | 900    | U 1    | U 1    | U 1    |
| 1,1,1-Trichloroethane                   | 5                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| 1,1,2-Trichloroethane                   | 1                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| Trichloroethene                         | 5                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| Trichlorofluoromethane (freon 11)       | 5                             |                       |        |        |        | U 1    | U 1    | U 1000  | U 20   | U 100  | U 1    | U 1    | U 1    |
| Vinyl chloride                          | 2                             |                       |        |        |        | U 1    | 29     | U 1000  | U 20   | U 100  | U 1    | U 1    | 2.5    |
| Totals                                  |                               | 170                   | ND     | ND     | ND     | ND     | 29     | 16,400  | 1,480  | 1,370  | ND     | ND     | 2.5    |

<sup>^</sup> - Class GA Groundwater Quality Standard or Guidance Value from New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (June 1998).

D.L. - Detection limit

U - Analyzed for but not detected above the laboratory detection limit

Bold and boxed cells indicate an exceedance of groundwater standards

Data compiled from Beardsley Design Associates April 2008 Limited Subsurface Investigation Report

ND - Non detect



Table 4-2: (Page 1 of 5) Soil Sample Analytical Results. Remedial Investigation Report. February 2010. 110 Luther Ave, Syracuse Label.

| Table 4-2: (Page 1 of 5) Soil Sample Analytical Results. Remedial Investigation Report. February 2010. 110 Luther Ave, Syracuse Label. |                                    |                |                       |        |        |        |        |         |        |        |        |    |         |    |         |    |        |    |
|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------|-----------------------|--------|--------|--------|--------|---------|--------|--------|--------|----|---------|----|---------|----|--------|----|
| Analyte                                                                                                                                | Soil Cleanup Objectives<br>(mg/kg) |                | Sample Identification |        |        |        |        |         |        |        |        |    |         |    |         |    |        |    |
|                                                                                                                                        | Unrestricted<br>Use                | Industrial Use | SB-1                  | SB-2   | SB-3   | TB-1   | TB-2   | TB-3    | TB-4   | MW-17  |        |    |         |    |         |    |        |    |
| Date Sampled                                                                                                                           |                                    |                | Feb-10                | Feb-10 | Feb-10 | Feb-10 | Feb-10 | Feb-10  | Feb-10 | Feb-10 |        |    |         |    |         |    |        |    |
| Depth of Sample                                                                                                                        |                                    |                | 4 - 7'                | 4 - 7' | 2 - 8' | 4 - 6' | 2 - 4' | 5 - 7'  | 4 - 7' | 6 - 8' |        |    |         |    |         |    |        |    |
| VOCs by EPA Method 8260B                                                                                                               |                                    |                |                       |        |        |        |        |         |        |        |        |    |         |    |         |    |        |    |
| acetone                                                                                                                                | 0.05                               | 1,000          | 0.011                 | J*     | 0.013  | J*     | 0.0037 | J*      | 0.074^ | *      | 0.051^ | *  | 0.034   | *  | 0.02    | J* | 0.015  | J* |
| benzene                                                                                                                                | 0.06                               | 89             |                       | U      |        | U      |        | U       |        | 0.0016 | J      |    | U       |    | U       |    | U      |    |
| bromodichloromethane                                                                                                                   |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| bromoform                                                                                                                              |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| bromomethane                                                                                                                           |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| methyl ethyl ketone                                                                                                                    | 0.12                               | 1,000          |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| carbon disulfide                                                                                                                       |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| carbon tetrachloride                                                                                                                   | 0.76                               | 44             |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| chlorobenzene                                                                                                                          | 1.1                                | 1,000          |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| chloroethane                                                                                                                           |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| chloroform                                                                                                                             | 0.37                               | 700            |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| chloromethane                                                                                                                          |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| dibromochloromethane                                                                                                                   |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| 1,1-dichloroethane                                                                                                                     | 0.27                               | 480            |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| 1,2-dichloroethane                                                                                                                     | 0.02                               | 60             |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| 1,1-dichloroethene                                                                                                                     | 0.33                               | 1,000          |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| 1,2-dichloropropane                                                                                                                    |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| cis-1,3-dichloropropene                                                                                                                |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| trans-1,3-dichloropropene                                                                                                              |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| ethylbenzene                                                                                                                           | 1                                  | 780            |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| 2-hexanone                                                                                                                             |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| methylene chloride                                                                                                                     | 0.05                               | 1,000          |                       | U      |        | U      |        | 0.0017  | JB     |        | 0.0028 | JB | 0.0021  | JB | 0.0018  | JB |        |    |
| methyl isobutyl ketone                                                                                                                 |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| styrene                                                                                                                                |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| 1,1,2,2-tetrachloroethane                                                                                                              |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| tetrachloroethene                                                                                                                      | 1.3                                | 300            |                       | U      |        | U      |        | U       |        |        | U      |    | 0.0057  | J  |         | U  | 0.17   |    |
| toluene                                                                                                                                | 0.7                                | 1,000          |                       | U      |        | U      |        | 0.00021 | JB     |        | 0.0014 | JB | 0.00037 | JB | 0.00021 | JB | U      |    |
| 1,1,1-trichloroethane                                                                                                                  | 0.68                               | 1,000          |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| 1,1,2-trichloroethane                                                                                                                  |                                    |                |                       | U      |        | U      |        | U       |        |        | U      |    | U       |    | U       |    | U      |    |
| trichloroethene                                                                                                                        | 0.47                               | 400            |                       | U      |        | U      |        | U       |        |        | U      |    | 0.0089  |    |         | U  | 0.015  |    |
| vinyl chloride                                                                                                                         | 0.02                               | 27             |                       | U      |        | U      |        | U       |        |        | 0.02^  |    | 0.002   | J  | 0.011   |    | U      |    |
| xylene, total                                                                                                                          | 0.26                               | 1,000          |                       | U      |        | U      |        | U       |        |        | 0.0022 | J  |         | U  |         | U  | U      |    |
| cis-1,2-dichloroethene                                                                                                                 | 0.25                               | 1,000          |                       | U      |        | U      |        | U       |        |        | 0.032  |    | 0.059   |    | 0.065   |    | 0.0033 |    |
| trans-1,2-dichloroethene                                                                                                               | 0.19                               | 1,000          |                       | U      |        | U      |        | U       |        |        |        |    | U       |    | U       |    | U      |    |
| Totals                                                                                                                                 |                                    |                | 0.011                 |        | 0.013  |        | 0.0037 |         | 0.0019 |        | 0.0400 |    | 0.11207 |    | 0.0980  |    | 0.2033 |    |

All values reported as mg/kg

U - Analyzed for but Not Detected

J - Indicates an estimated value

B - The analyte was found in an associated blank, as well as in the sample

\* - LCS, LCSD, MS, or MSD exceeds the control limits

^ - indicates an exceedance of Unrestricted Use SCOs

**Bold and boxed results indicate an exceedance of Industrial Use SCOs**

Industrial Use and Unrestricted Use Soil Cleanup Objectives from 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 2006).



Table 4-2: (Page 2 of 5) Soil Sample Analytical Results, Remedial Investigation Report, February 2010, 110 Luther Ave, Syracuse Label

| Analyte                      | Soil Cleanup Objectives<br>(mg/kg) |                | Sample Identification |        |        |
|------------------------------|------------------------------------|----------------|-----------------------|--------|--------|
|                              | Unrestricted<br>Use                | Industrial Use | SB-1                  | SB-2   | SB-3   |
| Date Sampled                 |                                    |                | Feb-10                | Feb-10 | Feb-10 |
| Depth of Sample              |                                    |                | 4 - 7"                | 4 - 7" | 2 - 8" |
| SVOCs by EPA Method 8270C    |                                    |                |                       |        |        |
| phenol                       | 0.33                               | 1,000          | U                     | U      | U      |
| bis(2-chloroethyl)ether      |                                    |                | U                     | U      | U      |
| 2-chlorophenol               |                                    |                | U                     | U      | U      |
| 1,3-dichlorobenzene          | 2.4                                | 560            | U                     | U      | U      |
| 1,4-dichlorobenzene          | 1.8                                | 250            | U                     | U      | U      |
| benzyl alcohol               |                                    |                | U                     | U      | U      |
| 1,2-dichlorobenzene          | 1.1                                | 1,000          | U                     | U      | U      |
| 2,2'-oxybis[1-chloropropane] |                                    |                | U                     | U      | U      |
| 2-methylphenol               |                                    |                | U                     | U      | U      |
| hexachloroethane             |                                    |                | U                     | U      | U      |
| n-nitrosodi-n-propylamine    |                                    |                | U                     | U      | U      |
| 4-methylphenol               |                                    |                | U                     | U      | U      |
| nitrobenzene                 |                                    |                | U                     | U      | U      |
| isophorone                   |                                    |                | U                     | U      | U      |
| 2-nitrophenol                |                                    |                | U                     | U      | U      |
| 2,4-dimethylphenol           |                                    |                | U                     | U      | U      |
| bis(2-chloroethoxy)methane   |                                    |                | U                     | U      | U      |
| 2,4-dichlorophenol           |                                    |                | U                     | U      | U      |
| 1,2,4-trichlorobenzene       |                                    |                | U                     | U      | U      |
| naphthalene                  | 12                                 | 1,000          | U                     | U      | U      |
| 4-chloroaniline              |                                    |                | U                     | U      | U      |
| hexachlorobutadiene          |                                    |                | U                     | U      | U      |
| 4-chloro-3-methylphenol      |                                    |                | U                     | U      | U      |
| 2-methylnaphthalene          |                                    |                | U                     | U      | U      |
| hexachlorocyclopentadiene    |                                    |                | U                     | U      | U      |
| 2,4,6-trichlorophenol        |                                    |                | U                     | U      | U      |
| 2,4,5-trichlorophenol        |                                    |                | U                     | U      | U      |
| 2-chloronaphthalene          |                                    |                | U                     | U      | U      |
| 2-nitroaniline               |                                    |                | U                     | U      | U      |
| acenaphthylene               | 100                                | 1,000          | U                     | U      | U      |
| dimethyl phthalate           |                                    |                | U                     | U      | U      |
| 2,6-dinitrotoluene           |                                    |                | U                     | U      | U      |
| acenaphthene                 | 20                                 | 1,000          | U                     | U      | U      |
| 3-nitroaniline               |                                    |                | U                     | U      | U      |
| 2,4-dinitrophenol            |                                    |                | U                     | U      | U      |
| dibenzofuran                 |                                    |                | U                     | U      | U      |
| 2,4-dinitrotoluene           |                                    |                | U                     | U      | U      |
| 4-nitrophenol                |                                    |                | U                     | U      | U      |
| fluorene                     | 30                                 | 1,000          | U                     | U      | U      |
| 4-chlorophenyl phenyl ether  |                                    |                | U                     | U      | U      |
| diethyl phthalate            |                                    |                | U                     | U      | U      |
| 4-nitroaniline               |                                    |                | U                     | U      | U      |
| 4,6-dinitro-2-methylphenol   |                                    |                | U                     | U      | U      |
| n-nitrosodiphenylamine       |                                    |                | U                     | U      | U      |
| 4-bromophenyl phenyl ether   |                                    |                | U                     | U      | U      |
| hexachlorobenzene            | 0.33                               | 12             | U                     | U      | U      |
| pentachlorophenol            | 0.8                                | 55             | U                     | U      | U      |
| phenanthrene                 | 100                                | 1,000          | U                     | U      | U      |
| carbazole                    |                                    |                | U                     | U      | U      |
| anthracene                   | 100                                | 1,000          | U                     | U      | U      |
| di-n-butyl phthalate         |                                    |                | U                     | U      | U      |
| fluoranthene                 | 100                                | 1,000          | U                     | U      | 0.016  |
| pyrene                       | 100                                | 1,000          | U                     | U      | U      |
| butyl benzyl phthalate       |                                    |                | U                     | U      | U      |
| 3,3'-dichlorobenzidine       |                                    |                | U                     | U      | U      |
| benzo[a]anthracene           | 1                                  | 11             | U                     | U      | U      |
| chrysene                     | 1                                  | 110            | U                     | U      | U      |
| bis(2-ethylhexyl)phthalate   |                                    |                | 0.120                 | 0.190  | 0.300  |
| di-n-octyl phthalate         |                                    |                | U                     | U      | U      |
| benzo[b]fluoranthene         | 1                                  | 11             | U                     | U      | U      |
| benzo[k]fluoranthene         | 0.8                                | 110            | U                     | U      | U      |
| benzo[a]pyrene               | 1                                  | 1.1            | U                     | U      | U      |
| indeno[1,2,3-cd]pyrene       | 0.5                                | 11             | U                     | U      | U      |
| dibenz[a,h]anthracene        | 0.33                               | 1.1            | U                     | U      | U      |
| benzo[g,h,i]perylene         | 100                                | 1,000          | U                     | U      | U      |
| Totals                       |                                    |                | 0.12                  | 0.19   | 0.316  |

All values reported as mg/kg

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B - The analyte was found in an associated blank, as well as in the sample

NS - Not sampled as part of this sampling event

^ - indicates an exceedance of Unrestricted Use SCOs

Bold and boxed results indicate an exceedance of Industrial Use SCOs

Industrial Use and Unrestricted Use Soil Cleanup Objectives from 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 2006).



Table 4-2: (Page 3 of 5) Soil Sample Analytical Results. Remedial Investigation Report. February 2010. 110 Luther Ave, Syracuse Label.

| Analyte                        | Soil Cleanup Objectives (mg/kg) |                | Sample Identification |        |        |
|--------------------------------|---------------------------------|----------------|-----------------------|--------|--------|
|                                | Unrestricted Use                | Industrial Use | SB-1                  | SB-2   | SB-3   |
| Date Sampled                   |                                 |                | Feb-10                | Feb-10 | Feb-10 |
| Depth of Sample                |                                 |                | 4 - 7'                | 4 - 7' | 2 - 8' |
| <b>PCBs by EPA Method 8082</b> |                                 |                |                       |        |        |
| Aroclor-1016                   |                                 |                | U                     | U      | U      |
| Aroclor-1221                   |                                 |                | U                     | U      | U      |
| Aroclor-1232                   |                                 |                | U                     | U      | U      |
| Aroclor-1242                   |                                 |                | U                     | U      | U      |
| Aroclor-1248                   |                                 |                | U                     | U      | U      |
| Aroclor-1254                   |                                 |                | U                     | U      | U      |
| Aroclor-1260                   |                                 |                | U                     | U      | U      |
| Totals                         | 0.1                             | 25             | ND                    | ND     | ND     |

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**Bold and boxed results indicate an exceedance of Industrial Use SCOs**

Industrial Use and Unrestricted Use Soil Cleanup Objectives from 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 2006).



Table 4-2: (Page 4 of 5) Soil Sample Analytical Results. Remedial Investigation Report. February 2010. 110 Luther Ave, Syracuse Label.

| Analyte                            | Soil Cleanup Objectives (mg/kg) |                | Sample Identification |        |        |
|------------------------------------|---------------------------------|----------------|-----------------------|--------|--------|
|                                    | Unrestricted Use                | Industrial Use | SB-1                  | SB-2   | SB-3   |
| Date Sampled                       |                                 |                | Feb-10                | Feb-10 | Feb-10 |
| Depth of Sample                    |                                 |                | 4 - 7'                | 4 - 7' | 2 - 8' |
| <b>Metals by EPA Method 6010 B</b> |                                 |                |                       |        |        |
| Silver                             | 2                               | 6,800          | U                     | U      | U      |
| Aluminum                           |                                 |                | 21,600                | 17,100 | 6,680  |
| Arsenic                            | 13                              | 16             | 5.9 J                 | 2.8 J  | U      |
| Barium                             | 350                             | 10,000         | 137 J                 | 80.7 J | 20.5 J |
| Beryllium                          | 7.2                             | 2,700          | 0.30 J                | 0.32 J | 0.14 J |
| Calcium                            |                                 |                | 3,720                 | 3,560  | 1,050  |
| Cadmium                            | 2.5                             | 60             | U                     | U      | U      |
| Cobalt                             |                                 |                | 10.6                  | 7.8    | 3.7    |
| Chromium                           | 30                              | 800            | 33.5^ J               | 25.2 J | 9.8 J  |
| Copper                             | 50                              | 10,000         | 30.0 J                | 27.0 J | 10.7 J |
| Iron                               |                                 |                | 30,000                | 24,300 | 10,400 |
| Potassium                          |                                 |                | 3,390                 | 2,260  | 680    |
| Magnesium                          |                                 |                | 7,610                 | 6,190  | 2,440  |
| Manganese                          | 1,600                           | 10,000         | 436 J                 | 242 J  | 87.3 J |
| Sodium                             |                                 |                | 1,640                 | 780    | 358    |
| Nickel                             | 30                              | 10,000         | 33.1^                 | 28.1   | 10.5   |
| Lead                               | 63                              | 3,900          | 9.7                   | 7.1    | 2 J    |
| Antimony                           |                                 |                | UJ                    | UJ     | UJ     |
| Selenium                           | 3.9                             | 6,800          | UJ                    | UJ     | UJ     |
| Thallium                           |                                 |                | U                     | U      | U      |
| Vanadium                           |                                 |                | 37.0 J                | 28.1 J | 11.8 J |
| Zinc                               | 109                             | 10,000         | 72.0 J                | 59.0 J | 17.7 J |
| <b>Mercury by EPA Method 7470A</b> |                                 |                |                       |        |        |
| Mercury                            | 0.18                            | 5.7            | U                     | U      | U      |

All values reported as mg/kg

U - Analyzed for but Not Detected

J - Indicates an estimated value

NS - Not sampled as part of this sampling event

^ - indicates an exceedance of Unrestricted Use SCOs

**Bold and boxed results indicate an exceedance of Industrial Use SCOs**

Industrial Use and Unrestricted Use Soil Cleanup Objectives from 6 NYCRR Subpart 375-6 Remedial Program Soil Cleanup Objectives (December 2006).

Table 4-2: (Page 5 of 5) Soil Sample Analytical Results. Remedial Investigation Report. February 2010. 110 Luther Ave, Syracuse Label.

| General Chemistry | Sample Identification |        |        |        |        |        |        |        |
|-------------------|-----------------------|--------|--------|--------|--------|--------|--------|--------|
|                   | SB-1                  | SB-2   | SB-3   | TB-1   | TB-2   | TB-3   | TB-4   | MW-17  |
| Date Sampled      | Feb-10                | Feb-10 | Feb-10 | Feb-10 | Feb-10 | Feb-10 | Feb-10 | Feb-10 |
| Percent Moisture  | 21.4                  | 17.5   | 11.5   | 13.4   | 18.6   | 21     | 16.9   | 20.8   |
| Percent Solids    | 78.6                  | 82.5   | 88.5   | 86.6   | 81.4   | 79     | 83.1   | 79.2   |



Table 4-4: (Page 1 of 4) Groundwater Sample Analytical Results. Remedial Investigation Report. February-October 2010. 110 Luther Ave, Syracuse Label.

|                           |                   | Sample Identification |        |        |        |        |        |        |        |        |        |        |        |        |                  |                   |   |
|---------------------------|-------------------|-----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------------------|-------------------|---|
| Analyte                   | GW Std^<br>(ug/L) | MW-1                  | MW-2   | MW-5   | MW-7   | MW-8   | MW-9   | MW-11  | MW-12  | MW-13  | MW-16  | MW-17  | MW-18  | MW-19  | Duplicate        |                   |   |
| Date Sampled              |                   | Feb-10                | Feb-10 | Feb-10 | Feb-10 | Feb-10 | Feb-10 | Feb-10 | Feb-10 | Feb-10 | Feb-10 | Feb-10 | Oct-10 | Oct-10 | Feb-10<br>(MW-8) | Oct-10<br>(MW-19) |   |
| VOCs by EPA Method 8260B  |                   |                       |        |        |        |        |        |        |        |        |        |        |        |        |                  |                   |   |
| acetone                   | 50                | U                     | U      | U      | U      | U      | U      | U      | U      | 83     | U      | U      | U      | U      | U                | U                 |   |
| benzene                   | 1                 | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| bromodichloromethane      | 50                | U*                    | U*     | U*     | U*     | U*     | U      | U*     | U*     | U*     | U      | U      | U      | U      | U                | U                 |   |
| bromoform                 | 50                | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| bromomethane              | 5                 | U                     | U      | U      | U      | U      | U      | U*     | U*     | U*     | U      | U      | U      | U      | U                | U                 |   |
| methyl ethyl ketone       | 50                | U*                    | U*     | U*     | U*     | U*     | U      | U*     | U*     | U*     | U      | U      | U      | U      | U                | U                 |   |
| carbon disulfide          | 60                | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| carbon tetrachloride      | 5                 | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| chlorobenzene             | 5                 | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| chloroethane              | 5                 | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| chloroform                | 7                 | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| chloromethane             |                   | U                     | U      | U      | U      | U      | U      | U      | U      | U*     | U      | U*     | U      | U      | U*               | U                 |   |
| dibromochloromethane      | 50                | U*                    | U*     | U*     | U*     | U*     | U      | U*     | U*     | U*     | U      | U*     | U      | U      | U                | U                 |   |
| 1,1-dichloroethane        | 5                 | 1.1                   | J      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | 2.8    | J                | 2.6               |   |
| 1,2-dichloroethane        | 0.6               | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| 1,1-dichloroethene        | 5                 | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| 1,2-dichloropropane       | 5                 | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| cis-1,3-dichloropropene   | 0.4               | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| trans-1,3-dichloropropene | 0.4               | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| ethylbenzene              | 5                 | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| 2-hexanone                | 50                | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| methylene chloride        | 5                 | U                     | U      | U      | U      | 170    | J      | 21     | J      | 110    | J      | 8.6    | J      | 87     | J                | 35                | J |
| methyl isobutyl ketone    | 50                | U                     | U      | U      | U      | U*     | U      | U      | U      | U      | U      | U      | U*     | U      | U*               | U                 |   |
| styrene                   | 5                 | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| 1,1,2,2-tetrachloroethane | 5                 | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| tetrachloroethene         | 5                 | 60                    | 22     | U      | 27,000 | 3,900  | U      | 20,000 | 220    | 410    | U      | 14,000 | U      | 0.73   | U                | 3,500             |   |
| toluene                   | 5                 | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | 140    | J      | U      | U                | U                 |   |
| 1,1,1-trichloroethane     | 5                 | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| 1,1,2-trichloroethane     | 1                 | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | U                | U                 |   |
| trichloroethene           | 5                 | 39                    | 1.2    | J      | 4,300  | 860    | U      | 6,100  | 79     | 600    | U      | 2,000  | U      | U      | 900              | U                 |   |
| vinyl chloride            | 2                 | 33                    | U      | U      | 260    | J      | 250    | 270    | J      | 18     | J      | 29     | 2.3    | J      | 270              | U                 |   |
| xylenes, total            | 5                 | U                     | U      | U      | U      | U      | U      | U      | U      | U      | U      | U      | 9.7    | U      | U                | U                 |   |
| cis-1,2-dichloroethene    | 5                 | 150                   | U      | U      | 2,600  | 2,500  | U      | 4,400  | 670    | 780    | 50     | 750    | U      | U      | 2,500            | U                 |   |
| trans-1,2-dichloroethene  | 5                 | 0.91                  | J      | U      | U      | U      | U      | U      | U      | 12     | J      | U      | U      | U      | U                | U                 |   |
| Totals                    |                   | 284.01                | 23.2   | ND     | 34,330 | 7,531  | ND     | 30,880 | 995.6  | 1,914  | 52.3   | 16,977 | 13.15  | 2.8    | 7,205            | 2.6               |   |

All values reported as ug/L

U - Analyzed for but Not Detected

J - Indicates an estimated value

\* - LCS or LCSD exceeds the control limits

ND - Non detect

Bold and boxed results indicate an exceedance of Groundwater Standards

<sup>^</sup> - GW Std - Class GA Groundwater Quality Standard or Guidance Value from New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (June 1998).

Table 4-4: (Page 2 of 4) Groundwater Sample Analytical Results. Remedial Investigation Report. February-October 2010. 110 Luther Ave, Syracuse Label.

| Analyte                      | GW Std <sup>Δ</sup><br>(ug/L) | Sample Identification |        |        |        |        |        |        |   | Duplicate        |                   |
|------------------------------|-------------------------------|-----------------------|--------|--------|--------|--------|--------|--------|---|------------------|-------------------|
|                              |                               | MW-6                  | MW-8   | MW-9   | MW-11  | MW-15  | MW-18  | MW-19  |   | Feb-10<br>(MW-8) | Oct-10<br>(MW-19) |
| Date Sampled                 |                               | Feb-10                | Feb-10 | Feb-10 | Feb-10 | Feb-10 | Oct-10 | Oct-10 |   |                  |                   |
| SVOCS by EPA Method 8270C    |                               |                       |        |        |        |        |        |        |   |                  |                   |
| 1,2-dichlorobenzene          | 3                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 1,3-dichlorobenzene          | 3                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 1,4-dichlorobenzene          | 3                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| bis(2-chloroethyl)ether      | 1                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| benzyl alcohol               |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 2,2'-oxybis[1-chloropropane] |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| hexachloroethane             | 5                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| hexachlorobutadiene          | 0.5                           | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| hexachlorocyclopentadiene    | 5                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| hexachlorobenzene            | 0.04                          | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 1,2,4-trichlorobenzene       | 5                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 2,4,6-trichlorophenol        |                               | U                     | U      | U      | U      | U      | U      | 1.6    | J |                  | 1.6               |
| 2,4,5-trichlorophenol        |                               | U                     | U      | U      | U      | U      | U      | 1.6    | J |                  | 1.6               |
| bis(2-chloroethoxy)methane   | 5                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| butyl benzyl phthalate       | 50                            | U                     | U      | U      | 0.56   | U      | U      | U      | U | U                | U                 |
| n-nitrosodi-n-propylamine    |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| nitrobenzene                 | 0.4                           | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| isophorone                   | 50                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| naphthalene                  | 10                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 4-chloroaniline              | 5                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 2-methylnaphthalene          |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 2-chloronaphthalene          | 10                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 2-nitroaniline               | 5                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| acenaphthylene               |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| dimethyl phthalate           | 50                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 2,6-dinitrotoluene           | 5                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| acenaphthene                 | 20                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 3-nitroaniline               | 5                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| dibenzofuran                 |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 2,4-dinitrotoluene           | 5                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| fluorene                     | 50                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 4-chlorophenyl phenyl ether  |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| diethyl phthalate            | 50                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 4-nitroaniline               | 5                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| n-nitrosodiphenylamine       | 50                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 4-bromophenyl phenyl ether   |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| pentachlorophenol            | 1                             | U                     | U      | U      | U      | U      | U      | 100    |   |                  | 110               |
| phenanthrene                 | 50                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| carbazole                    |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| anthracene                   | 50                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| di-n-butyl phthalate         | 50                            | U                     | U      | U      | 1.1    | U      | 0.45   | J      |   | U                | U                 |
| fluoranthene                 | 50                            | U                     | U      | U      | U      | U      | 0.4    | J      |   | U                | U                 |
| pyrene                       | 50                            | U                     | U      | U      | U      | U      | 0.38   | J      |   | U                | U                 |
| 3,3'-dichlorobenzidine       | 5                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| benzo[a]anthracene           | 0.002                         | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| chrysene                     | 0.002                         | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| bis(2-ethylhexyl)phthalate   | 5                             | 3.8                   | J      | 1.2    | J      | 1.4    | J      | 1.6    | J | 5.1              | J                 |
| di-n-octyl phthalate         | 50                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| benzo[b]fluoranthene         | 0.002                         | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| benzo[k]fluoranthene         | 0.002                         | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| benzo[a]pyrene               | ND                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| indeno[1,2,3-cd]pyrene       | 0.002                         | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| dibenz[a,h]anthracene        | 50                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| benzo[g,h,i]perylene         | 5                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 2-chlorophenol               |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| phenol                       | 1                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 2-methylphenol               |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 2,4-dimethylphenol           | 50                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 2-nitrophenol                |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 2,4-dichlorophenol           | 5                             | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 4-chloro-3-methylphenol      |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 2,4-dinitrophenol            | 10                            | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| 4-nitrophenol                |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| methylphenol, 3&4            |                               | U                     | U      | U      | U      | U      | U      | U      |   | U                | U                 |
| Totals                       |                               | 3.8                   | ND     | 1.2    | 3.06   | 0.76   | 2.83   | 108.3  |   | 1.3              | 118.8             |

All values reported as ug/L

U - Analyzed for but Not Detected

J - Indicates an estimated value

NS - Not sampled as part of this sampling event

NS - Not sampled as part of this sampling event

Bold and boxed results indicate an exceedance of Groundwater Standards

Δ - GW Std - Class GA Groundwater Quality Standard or Guidance Value from New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (June 1998).



Table 4-4: (Page 3 of 4) Groundwater Sample Analytical Results. Remedial Investigation Report. February-October 2010. 110 Luther Ave, Syracuse Label.

| Analyte                            | GW Std <sup>^</sup><br>(ug/L) | Sample Identification |         |         |         |         |         |         |                   |
|------------------------------------|-------------------------------|-----------------------|---------|---------|---------|---------|---------|---------|-------------------|
|                                    |                               | MW-1                  | MW-5    | MW-7    | MW-10   | MW-11   | MW-12   | MW-13   | Duplicate         |
| Date Sampled                       |                               | Feb-10                | Feb-10  | Feb-10  | Feb-10  | Feb-10  | Feb-10  | Feb-10  | Feb-10<br>(MW-10) |
| <b>Metals by EPA Method 6010B</b>  |                               |                       |         |         |         |         |         |         |                   |
| Silver                             | 50                            | 0.35 J                | U       | U       | U       | U       | U       | U       | U                 |
| Aluminum                           |                               | 585                   | 2,870   | U       | U       | U       | U       | U       | 679               |
| Arsenic                            | 25                            | 6.8 J                 | U       | 5.2 J   | U       | U       | U       | U       | 5.6 J             |
| Barium                             | 1,000                         | 274                   | 389     | 215     | 398     | 124     | 212     | 36.6    | 396               |
| Beryllium                          | 3                             | U                     | U       | U       | U       | U       | U       | U       | U                 |
| Calcium                            |                               | 229,000               | 121,000 | 181,000 | 141,000 | 170,000 | 84,200  | 21,300  | 137,000           |
| Cadmium                            | 5                             | U                     | U       | U       | 13.7    | U       | U       | U       | 15.3              |
| Cobalt                             |                               | 1.2 J                 | 0.61 J  | U       | U       | U       | U       | 1.1 J   | U                 |
| Chromium                           | 50                            | 2.2 J                 | 7       | U       | U       | 0.87 J  | 0.73 J  | 1.8 J   | 0.65 J            |
| Copper                             | 200                           | 8.8 J                 | 14.9 J  | J       | 2 J     | 7.6 J   | 6.3 J   | 7.6 J   | 2.5 J             |
| Iron                               | 300                           | 5,140                 | 3,620   | 2,800   | 1,570   | 34,900  | 42,900  | 21,600  | 2,010             |
| Potassium                          |                               | 18,700                | 2,540   | 1,900   | 1,970   | 2,730   | 70,100  | 12,200  | 2,050             |
| Magnesium                          | 35,000                        | 64,200                | 24,300  | 56,200  | 47,300  | 50,800  | 22,000  | 5,280   | 46,100            |
| Manganese                          | 300                           | 4,820                 | 119     | 150     | 140     | 233     | 605     | 105     | 146               |
| Sodium                             | 20,000                        | 868,000               | 76,100  | 53,200  | 59,700  | 97,200  | 117,000 | 103,000 | 57,800            |
| Nickel                             | 100                           | U                     | 5.8     | U       | U       | 11      | 1.1 J   | 6       | U                 |
| Lead                               | 25                            | U                     | U       | U       | U       | U       | U       | U       | U                 |
| Antimony                           | 3                             | U                     | U       | U       | U       | U       | U       | U       | U                 |
| Selenium                           | 10                            | U                     | U       | U       | U       | U       | U       | U       | U                 |
| Thallium                           | 0.5                           | U                     | U       | U       | U       | U       | U       | U       | U                 |
| Vanadium                           |                               | 6.3                   | 5.6     | 2.9 J   | 2.9 J   | 3.7 J   | 2.3 J   | 1.8 J   | 3.2 J             |
| Zinc                               | 2,000                         | 215                   | 104     | 52.5    | 8.2 J   | 1,200   | 3,930   | 723     | 13.4 J            |
| <b>Mercury by EPA Method 7470A</b> |                               |                       |         |         |         |         |         |         |                   |
| Mercury                            | 0.7                           | U                     | U       | U       | U       | U       | U       | U       | U                 |

All values reported as ug/L

U - Analyzed for but Not Detected

J - Sample result is greater than the MDL but below the CRDL

Bold and boxed results indicate an exceedance of Groundwater Standards

<sup>^</sup> - GW Std - Class GA Groundwater Quality Standard or Guidance Value from New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (June 1998).

Groundwater samples were excessively turbid which could lead to anomalously high levels of metals.

Table 4-4: (Page 4 of 4) Groundwater Sample Analytical Results. Remedial Investigation Report.  
February-October 2010. 110 Luther Ave, Syracuse Label.

| Analyte                            | GW Std <sup>^</sup><br>(ug/L) | Sample Identification |        |                   |
|------------------------------------|-------------------------------|-----------------------|--------|-------------------|
|                                    |                               | MW-15                 | MW-16  | Duplicate         |
| Date Sampled                       |                               | Feb-10                | Feb-10 | Feb-10<br>(MW-16) |
| <b>Glycols by EPA Method 8015B</b> |                               |                       |        |                   |
| Propylene glycol                   | 1,000                         | U                     | U      | U                 |
| Ethylene glycol                    | 50                            | U                     | U      | U                 |
| Diethylene glycol                  |                               | U                     | U      | U                 |
| Totals                             |                               | ND                    | ND     | ND                |

U - Analyzed for but Not Detected

J - Sample result is greater than the MDL but below the CRDL

ND - None detected

**Bold and boxed results indicate an exceedance of Groundwater Standards**

<sup>^</sup> - GW Std - Class GA Groundwater Quality Standard or Guidance Value from New York State Department of Environmental Conservation (NYSDEC) Division of Water Technical and Operational Guidance Series (June 1998).



Table 4-5: (Page 1 of 1) Soil Vapor Sample Analytical Results. Remedial Investigation Report.  
October 2010. 110 Luther Ave, Syracuse Label.

| Analyte                         | Sample Identification |           |                 |
|---------------------------------|-----------------------|-----------|-----------------|
|                                 | SVW-3                 | SVW-4     | Duplicate       |
| Date Sampled                    | Oct-10                | Oct-10    | Oct-10<br>SVW-3 |
| <b>VOCs by EPA Method TO-15</b> |                       |           |                 |
| 1,1,1-Trichloroethane           | UJ                    | UJ        | UJ              |
| 1,1,1,2-Tetrachloroethane       | UJ                    | UJ        | UJ              |
| 1,1,2-Trichloroethane           | UJ                    | UJ        | UJ              |
| 1,1-Dichloroethane              | U                     | U         | U               |
| 1,1-Dichloroethene              | U                     | U         | U               |
| 1,2,4-Trichlorobenzene          | U                     | U         | U               |
| 1,2,4-Trimethylbenzene          | 3.1 J                 | 98        | 0.60 J          |
| 1,2-Dibromoethane               | U                     | U         | U               |
| 1,2-Dichlorobenzene             | U                     | U         | U               |
| 1,2-Dichloroethane              | U                     | U         | U               |
| 1,2-Dichloropropane             | U                     | U         | U               |
| 1,3,5-Trimethylbenzene          | 0.95 J                | 43        | UJ              |
| 1,3-butadiene                   | U                     | U         | U               |
| 1,3-Dichlorobenzene             | U                     | U         | U               |
| 1,4-Dichlorobenzene             | U                     | 9.4       | U               |
| 1,4-Dioxane                     | U                     | U         | U               |
| 2,2,4-trimethylpentane          | 1.4                   | 13,000    | 1.9             |
| 4-ethyltoluene                  | U                     | 16        | U               |
| Acetone                         | 14 J                  | U         | 7.5 J           |
| Allyl chloride                  | U                     | U         | U               |
| Benzene                         | 0.52                  | 8.4       | 0.55            |
| Benzyl chloride                 | U                     | U         | U               |
| Bromodichloromethane            | U                     | U         | U               |
| Bromoform                       | U                     | U         | U               |
| Bromomethane                    | U                     | U         | U               |
| Carbon disulfide                | 0.76 J                | 5.2       | UJ              |
| Carbon tetrachloride            | 0.45 J                | U         | 0.26 J          |
| Chlorobenzene                   | U                     | U         | U               |
| Chloroethane                    | U                     | U         | U               |
| Chloroform                      | 0.55 J                | U         | UJ              |
| Chloromethane                   | 0.65                  | U         | 0.50            |
| cis-1,2-Dichloroethene          | 1.1                   | U         | 0.69            |
| cis-1,3-Dichloropropene         | U                     | U         | U               |
| Cyclohexane                     | U                     | 720       | U               |
| Dibromochloromethane            | U                     | U         | U               |
| Ethyl acetate                   | U                     | U         | U               |
| Ethylbenzene                    | 0.49 J                | 19        | UJ              |
| Freon 11                        | 1.4 J                 | 0.69 J    | 0.80 J          |
| Freon 113                       | U                     | U         | U               |
| Freon 114                       | U                     | U         | U               |
| Freon 12                        | 2.7                   | 1.4       | 1.6             |
| Heptane                         | U                     | 200       | U               |
| Hexachloro-1,3-butadiene        | U                     | U         | U               |
| Hexane                          | 1.0                   | 1,900     | 0.68            |
| Isopropyl alcohol               | UJ                    | U         | 0.80 J          |
| m&p-Xylene                      | 0.97 J                | 68        | 0.79 J          |
| Methyl Butyl Ketone             | U                     | U         | U               |
| Methyl Ethyl Ketone             | 1.2                   | U         | 1.3             |
| Methyl Isobutyl Ketone          | U                     | U         | U               |
| Methyl tert-butyl ether         | U                     | U         | U               |
| Methylene chloride              | 2.6 J                 | U         | 0.60 J          |
| o-Xylene                        | 0.57 J                | 27        | UJ              |
| Propylene                       | U                     | U         | U               |
| Styrene                         | 0.69 J                | U         | UJ              |
| Tetrachloroethylene             | 0.97 J                | 19        | 0.97 J          |
| Tetrahydrofuran                 | U                     | U         | U               |
| Toluene                         | 1.6                   | 56        | 1.8             |
| trans-1,2-Dichloroethene        | U                     | U         | U               |
| trans-1,3-Dichloropropene       | U                     | U         | U               |
| Trichloroethene                 | 2.5 J                 | U         | 0.49 J          |
| Vinyl acetate                   | U                     | U         | U               |
| Vinyl Bromide                   | U                     | U         | U               |
| Vinyl chloride                  | U                     | U         | U               |
| Total VOCs                      | 40.17                 | 16,191.09 | 21.83           |

All values reported as ug/m<sup>3</sup>

U - Analyzed for but not detected at the reporting limit

J - Estimated value (analyte detected at or below quantitaion limit)