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February 27, 2014

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Subject: 2013 Annual Report, Groundwater Monitoring Program  
Former IBM Facility, Owego, New York

Reference: 6NYCRR Part 373 Hazardous Waste Management Permit  
No. 7-4930-00095/00005

Dear Ms. LaClair:

Enclosed is the 2013 Annual Report for the Groundwater Monitoring Program at the former IBM facility in Owego, New York. This report is being submitted in accordance with the facility's Part 373 Permit and Groundwater Monitoring Plan. An EDD for the data in this report is also being submitted.

Should you have any questions concerning this report, please contact me at 703-257-2582 or by email at [whalen@us.ibm.com](mailto:whalen@us.ibm.com).

Sincerely,

A handwritten signature in black ink that reads 'Kevin Whalen'.

Kevin Whalen  
Program Manager, IBM Corporate Environmental Affairs

Enclosure

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**2013 ANNUAL REPORT  
GROUNDWATER MONITORING PROGRAM  
FORMER IBM FACILITY  
OWEGO, NEW YORK  
6NYCRR PART 373 PERMIT NO. 7-4930-00095/00005**

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**Prepared for:**

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**February 27, 2014**

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*Third Quarter 2013 groundwater elevations were measured on July 1, 2013 in the Waste Management Area, Southern and Western Boundary Areas, and Tower View Drive / Mirror Lake Area in the southern part of the Site.*

*Fourth Quarter 2013 groundwater elevations were measured on October 1, 2013 in the Tank Farm Area and Parking Lot 001 Area in the northern part of the Site.*

*Third Quarter 2013 groundwater sampling occurred in July 2013 in the Waste Management Area, Southern and Western Boundary Areas, and Tower View Drive / Mirror Lake Area in the southern part of the Site.*

*Fourth Quarter 2013 groundwater sampling occurred in October 2013 in the Tank Farm Area and Parking Lot 001 Area in the northern part of the Site.*

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# 1 INTRODUCTION

This report has been prepared by Groundwater Sciences Corporation (GSC) for the International Business Machines Corporation (IBM). Its purpose is to satisfy the annual reporting requirements for IBM's former Owego, New York facility (the "Site"), located approximately one mile southeast of the village of Owego, New York (Figure 1-1).

## 1.1 Regulatory Reference

This annual report is being submitted to the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation in accordance with Modules II.H (Corrective Action Program) and III.D (Reporting Requirements for Groundwater Monitoring) of the Site's 6NYCRR Part 373 Hazardous Waste Management Permit (Part 373 Permit) No. 7-4930-00095/00005, with an effective date of March 30, 2010. Groundwater monitoring data generated from January 1 to December 31, 2013, including groundwater extraction volumes, groundwater elevations, and analytical chemistry data, is presented in this report. Groundwater monitoring data generated between January 1 and June 30, 2013 was also presented in the 2013 Semiannual Data Report previously submitted to NYSDEC on August 23, 2013. In accordance with the Module II.H.3 requirements, contaminant levels and the effectiveness of the corrective measures program are evaluated in this report.

## 1.2 Organization of Report

This report is organized as follows. Section 1.3 provides background on the Groundwater Monitoring Program and Section 1.4 provides an overview of the Site's hydrogeologic setting. Section 2 discusses the groundwater sampling and related data collected during 2013 for the Groundwater Monitoring Program, including extraction well pumping data and quality control (QC) analytical chemistry data. Section 3 evaluates the groundwater extraction, hydrogeology, and groundwater chemistry in various areas of the Site, including the Tank Farm Area (TFA) and the Parking Lot 001 Area (P001 Area) in the northern part of the Site, and the Waste Management Area (WMA), Tower View Drive/Mirror Lake Area (TVD/MLA), Southern Boundary Area (SBA) and Western Boundary Area (WBA) in the southern part of the Site. These areas and all active monitoring and extraction wells are shown on Plate 1.

### 1.3 Background Information

In June 1987, IBM submitted a Resource Conservation and Recovery Act (RCRA) Post-Closure Permit Application to NYSDEC and the United States Environmental Protection Agency (USEPA) for the Waste Management Area (WMA) at the Site. As required by RCRA regulations, IBM established a quarterly Groundwater Monitoring Program for the Site, including the WMA. The groundwater monitoring network and its operation, maintenance, and reporting conditions were subsequently incorporated into the Site's Part 373 Permit. The Part 373 Permit required the preparation of Groundwater Monitoring Plan (GMP), which NYSDEC approved in March 1995. In conjunction with the renewal of the Site's Part 373 Permit, IBM submitted a new GMP in December 2006. The new GMP was approved by NYSDEC on January 4, 2007 and replaced the original 1995 GMP. The corrective action groundwater monitoring network is explained in detail in the GMP, which includes a description of the groundwater treatment process, wells, sampling frequencies, site-specific parameter list, and semiannual and annual reporting requirements.

### 1.4 Overview of Site Hydrogeology

The hydrogeology of the former IBM Owego Site consists of three primary geologic zones or units: (1) bedrock, consisting of shale and siltstone of the Devonian West Falls Group; (2) unconsolidated sediments of glacial origin consisting of a dense mixture of clay, silt, sand, gravel, and boulders ("till"); and (3) other unconsolidated sediments of various depositional origins, including alluvium, glaciolacustrine silt, glaciofluvial sands and gravels ("outwash") and fill. The bedrock is weathered to varying degrees on its upper surface, and this zone of weathered bedrock is very thin or absent in some areas. The till and other unconsolidated sediments are discontinuous units that vary greatly in thickness and hydraulic conductivity across the Site. Where they are present, the alluvium and glaciofluvial deposits (primarily outwash sands and gravels) form the principal shallow water-transmitting unit and are referred to in this report as the alluvial zone. The upper part of the bedrock, including the interface between the weathered bedrock and the fine-grained unconsolidated sediments (including the bottom of the till) typically transmits water and is referred to in this report as the till/bedrock zone. The till itself typically exhibits very low hydraulic conductivity and is not an important water-transmitting unit.

The site-wide groundwater elevation contour map shown on Figure 1-2 was constructed for the till/bedrock zone using October 2013 data from the northern part of the Site and July 2013 data from the southern part of the Site. A similar map was published in the 2013 Semiannual Data Report using January and April 2013 data from the till/bedrock zone. Except where influenced by the extraction wells, groundwater flow in the till/bedrock zone is generally from northeast to southwest across the Site toward Barnes Creek, which is tributary to the Susquehanna River. The Susquehanna River is located approximately 800 feet southwest of the Site's southern boundary, as shown on Figure 1-1.

A second groundwater elevation contour map (Figure 1-3) was constructed for the alluvial zone using October 2013 data from the northern part of the site and July 2013 data from the southern part of the site. This map shows the discontinuous nature of the alluvial zone, where groundwater flow is strongly influenced by the extraction wells in the P001 Area, southern WMA and WBA, and SBA. The alluvial zone is generally absent in the TFA and in the northern portions of the WMA and TVD/MLA.



## 2 GROUNDWATER MONITORING PROGRAM

Quarterly field activities for the groundwater monitoring program consist of groundwater elevation measurements, groundwater sampling, and well inspections. These activities were performed in accordance with the GMP by qualified field personnel from Groundwater Sciences Corporation.

### 2.1 Groundwater Extraction Wells

The Site's groundwater extraction and treatment system consists of six extraction wells and a packed-column air stripping tower designed to remove volatile organic compounds (VOCs) from groundwater. As shown on Plate 1, the extraction wells are located in three areas:

1. In the Tank Farm Area, extraction well 415 pumps from the till/bedrock zone;
2. In the Parking Lot 001 Area, extraction well 412 pumps primarily from the alluvial zone, extraction well 413 pumps from till/bedrock zone, and extraction well 414 pumps from both the alluvial and till/bedrock zones;
3. In the Waste Management Area, extraction well 404 pumps from both the alluvial and till/bedrock zones and extraction well 405 pumps primarily from the alluvial zone. Wells 404 and 405 have multiple screened intervals.

Except for brief periods of testing and maintenance, the system has operated continuously since April 1990. About 4.1 billion gallons of groundwater have been extracted and treated since 1985.

#### 2.1.1 Summary of Significant Maintenance Activities

The following significant maintenance activities were performed on the groundwater monitoring wells, extraction wells, and treatment system in 2013:

1. The flow meter at well 415 was cleaned and calibrated on February 27.
2. The conveyance piping in the utility tunnel was inspected on March 8.
3. The discharge piping in the utility tunnel between the P001 Area extraction wells and the GTF was cleaned by high-pressure water-jetting between March 26 and March 28. Cleanout pipe fittings were installed at four locations along the tunnel conveyance line.

4. The motor bearing on the air stripping tower blower failed on May 19 and the motor was replaced on May 21.
5. The submersible pump in extraction well 415 was replaced on May 31.
6. The analog input card on the process logic controller at the GTF was replaced on June 25.
7. The submersible pump in extraction well 415 was replaced on September 27 and the flow meter was inspected and tested.
8. Well 415 was treated using chemical recirculation to remove fouling in the well screen on November 18.
9. The flow meter at well 415 was tested and repaired between November 29 and December 6.
10. An inspector from the Susquehanna River Basin Commission visited the facility on December 10.

### **2.1.2 Pumping Volumes**

Table A-1 in Appendix A shows pumping volumes for the extraction wells in the Waste Management Area (wells 404 and 405), Parking Lot 001 Area (wells 412, 413, and 414) and Tank Farm Area (well 415). This table shows the gallons pumped monthly in 2013 from each metered well. (In the P001 Area, extraction well 413 is equipped with a submersible pump and is separately metered from extraction wells 412 and 414, which share a jet pump and are not separately metered.) The volume of groundwater extracted in 2013 was 137.8 million gallons (Mgal), about 10 percent less than in 2012.

### **2.1.3 Evaluation of Treatment Efficiency**

Treatment efficiency for the groundwater treatment system was calculated by comparing concentrations of VOCs in the GTF influent with the concentrations of VOCs in the treated effluent discharged from the air stripping tower. The influent and effluent were sampled monthly in 2013 in accordance with the Site's National Pollutant Discharge Elimination System (NPDES) Permit

Number NY0244597. Except for a detection of 1,1,1-trichloroethane (TCA) at 1 ug/L in the January 2013 effluent sample, no other EPA Method 624 VOCs were detected in any of the monthly effluent samples collected in 2013, resulting in a removal efficiency approaching 100 percent.

## **2.2 Groundwater Monitoring Wells**

At the beginning of 2013, the Site's Corrective Action Monitoring Program consisted of 140 wells. Physical specifications for the monitoring and extraction wells used in 2013 are listed on Table B-1 of Appendix B. This table has been updated to reflect changes in the well field.

### **2.2.1 Groundwater Elevation Measurements**

Groundwater elevations were measured in the 140 wells listed on Table B-2a of Appendix B. These include 130 on-Site wells, four offsite wells (540, 541, 542, 543) in the Route 17C interchange area south of the Southern Boundary Area, and six offsite wells (521, 522, 524, 529, 532, 534) on the Moore Tire property located west of the P001 Area.

Groundwater elevations were measured quarterly on January 21, April 1, July 1, and October 1, 2013. The tabulated groundwater elevation data for 2013 are presented in Appendix C. Groundwater elevation data for prior years has been published in previous annual reports and is maintained in a web-accessible geographic information system (GIS) database by Conestoga-Rovers and Associates (CRA). Groundwater elevations were calculated by subtracting the measured depth to water from the surveyed elevation of the measuring point listed in Appendix C. The designated measuring point is typically the top of the inner well casing ("TOC Elevation").

### **2.2.2 Monitoring Well Inspections and Dedicated Equipment**

In addition to the inspection performed at the time each monitoring well was sampled, a comprehensive annual inspection of the well field was performed during the January and April 2013 sampling events. This inspection included the following items: (1) measurement of depth to well bottom and comparison of this depth to the reference depth to determine the need for redevelopment, (2) assessment of the legibility of the well tag and visibility of the survey mark, (3) determination of whether the well standpipe needs to be painted and whether the location should be

cleared of brush/weeds, (4) assessment of the condition of the well seal, and (5) description of dedicated equipment (if any) and the condition of the bailer cable.

The well inspection summary table in Appendix C also shows the type of sampling device used in each well. Polyethylene diffusion bag (PDB) sampling devices are used in many monitoring wells and significantly reduce the volume of purge water generated during groundwater sampling. The PDB samplers are typically set at the midpoint of the water column in each well.

### **2.2.3 Groundwater Sampling**

Table B-2b of Appendix B lists the wells that are required by the GMP to be sampled and analyzed quarterly, semiannually, or annually. Other wells not listed on Table B-2b of the GMP were sampled voluntarily to supplement the GMP sampling plan; this supplemental list includes the groundwater extraction wells when they are pumping.

The 2013 sampling schedule for the groundwater monitoring program is summarized in Appendix D. For wells sampled semiannually, a staggered quarterly sampling arrangement was approved by NYSDEC whereby the sampling events in the northern and southern parts of the Site are scheduled in alternating quarters so as to evenly distribute the sampling field work over the course of the year.

The quarterly sampling events for 2013 occurred on January 22 to 25, April 2 to 4, July 1 to 3, and October 2 to 4. All groundwater samples collected during 2013 were analyzed by Eurofins Lancaster Laboratories Environmental (NYSDOH ELAP #10670). The completed chains of custody for the third and fourth quarters of 2013 are reproduced in Appendix E of this report. The chains of custody for the first and second quarters were published in Appendix E of the 2013 Semiannual Data Report.

Of the wells that were scheduled to be sampled in the northern part of the Site during the second and fourth quarters, none was dry. (Well 114 in the TFA was dry in April and October, but is not routinely sampled). Of the wells that were scheduled to be sampled in the southern part of the Site during the first and third quarters, none was dry.

The remainder of this section discusses the analytical results for environmental samples collected during 2013, including groundwater monitoring well, extraction well, and QA/QC samples.

### **2.2.3.1 Groundwater Chemistry Results**

Chemistry data generated from groundwater monitoring activities is maintained in a web-accessible GIS database by CRA. This GIS database contains groundwater analytical chemistry and field quality control (QC) data from 1993 to the present. Analytical chemistry data generated by the laboratory is transmitted to CRA and GSC electronically. The data is periodically reviewed for outliers, new high or low concentrations, and missing data.

A summary printout of the groundwater analytical chemistry data for all samples collected in 2013 from monitoring wells and extraction wells is presented in Appendix F. This summary includes results for pH, temperature, turbidity, and specific conductance measured in the field at the time of sampling. The summary data presented in Appendix F are shown in alphanumeric ascending order by sample location, and chronologically by sample date for each location.

#### **2.2.3.1.1 Volatile Organic Compounds**

The primary parameters detected and of concern at the Site are trichloroethene (TCE), TCA, and several transformation products of TCE and TCA. Transformation products of TCA include 1,1-dichloroethane (11-DCA), 1,1-dichloroethene (11-DCE), and chloroethane. Transformation products of TCE include cis-1,2-dichloroethene (c12-DCE) and vinyl chloride, the latter of which can also be produced by transformation of 11-DCE in the TCA series. Methylene chloride (dichloromethane) historically has been detected at the Site but is now detected only sporadically in the till/bedrock zone of the TFA and P001 Area. Including TCE, TCA, several transformation products of each, and methylene chloride, a total of 13 VOCs were detected in groundwater in 2013 at concentrations greater than the New York State Groundwater Quality Standard (NYSGQS). Table 2-1 lists the 16 parameters analyzed in groundwater for the Site's Groundwater Monitoring Program together with the NYSGQS for each parameter, the maximum concentration of each parameter measured in 2013, and the monitoring well and extraction well where the maximum concentration was detected. As was the case in the previous three years, the NYSGQS was not exceeded in any well for dichlorodifluoromethane (Freon 12), trichloromethane (chloroform), and trichlorofluoromethane (Freon 11). Freon 11 was not detected in any sample collected in 2013.

<b>Table 2-1. Analytical Parameters for the Groundwater Monitoring Program*</b>			
<b>Parameter</b>	<b>NYSGQS (ug/l)</b>	<b>Maximum Concentration Measured in a Monitoring Well in 2013</b>	<b>Maximum Concentration Measured in an Extraction Well in 2013</b>
<b><i>Detected at a concentration greater than the NYSGQS:</i></b>			
1,1,1-Trichloroethane (TCA)	5	3,400 ug/l @ 609	2,300 ug/l @ 415
1,1-Dichloroethane (11-DCA)	5	2,400 ug/l @ 609	1,700 ug/l @ 415
1,1-Dichloroethene (11-DCE)	5	600 ug/l @ 353	1,500 ug/l @ 415
Tetrachloroethene (PCE)	5	24 ug/l @ 610	35 ug/l @ 415
Trichloroethene (TCE)	5	1,300 ug/l @ 353	1,600 ug/l @ 415
cis-1,2-Dichloroethene (c12-DCE)	5	270 ug/l @ 128	3,900 ug/l @ 415
Vinyl chloride	2	20 ug/l @ 625	270 ug/l @ 415
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	5	470 ug/l @ 609	220 ug/l @ 415
1,2-dichloro-1,2,2-trifluoroethane (Freon 123a)	5	55 ug/l @ 609	29 ug/l @ 414
Methylene chloride (DCM)	5	11 ug/l @ 612	Not detected
Chloroethane	5	20 ug/l @ 521	1.7 ug/l @ 412
1,2-Dichloroethane	0.6	2.6 ug/l @ 612	0.6 ug/l @ 414
1,1,2-Trichloroethane	1	4.1 ug/l @ 128	13 ug/l @ 415
<b><i>Not detected at a concentration greater than the NYSGQS:</i></b>			
Dichlorodifluoromethane (Freon 12)	5	2.4 ug/l @ 382	Not detected
Trichloromethane (Chloroform)	7	1.7 ug/l @ 627	1.3 ug/l @ 412
Trichlorofluoromethane (Freon 11)	5	Not detected	Not detected
*from Table 1-1 of <i>Groundwater Monitoring Plan, Former IBM Facility, Owego, New York</i> (December 2006). NYSGQS = New York State Groundwater Quality Standard (from 6 NYCRR Part 703.5, Table 1, Class GA) ug/l = micrograms per liter			

### 2.2.3.2 Quality Control Results for Environmental Blanks

Environmental blanks, consisting of equipment rinse blanks and trip blanks, were collected and analyzed in 2013 for quality control purposes. The analytical chemistry data for these environmental blank samples is presented in Appendix G.

Trip blanks were prepared by the laboratory for each sampling round using analyte-free deionized (DI) water for each cooler containing VOC samples. The purpose of the trip blanks is to detect contamination during transportation or storage. A trip blank was the first item placed into each cooler by the laboratory and accompanied the sample containers from the laboratory to the field sampling locations and back to the laboratory. Sixteen trip blanks were collected in 2013 and the analytical results for these trip blanks are presented in Appendix G. Groundwater samples associated with each trip blank can be determined by noting the dates over which the trip blanks are valid (refer to “Sample Description” heading in Appendix G).

Equipment rinse blanks were collected to confirm the efficiency of decontamination procedures by rinsing non-dedicated equipment such as water level indicators with analyte-free deionized water and catching the rinse water in sample bottles for analysis. Thirteen equipment rinse blanks were collected in 2013 from water level indicators and the analytical results for these blanks are presented in Appendix G.

Five VOCs on the Site’s parameter list (Table 2-1) were detected in environmental blanks in 2013; only one VOC was detected at a concentration greater than 0.5 ug/l: TCE was detected in 10 of 13 equipment rinse blanks and in 13 of 16 trip blanks at concentrations ranging from 0.1 to 1.2 ug/l. None of the groundwater analytical chemistry results from monitoring wells appeared to be correlated with these detections. Groundwater analytical chemistry data was qualified as necessary in accordance with EPA Region 2 data validation procedures.

### **3 EVALUATION OF HYDROGEOLOGY AND HYDROGEOCHEMISTRY**

This section is an evaluation of the groundwater monitoring data collected during 2013. Current data are presented in the form of potentiometric and isoconcentration contour maps and are also evaluated in the context of historical trends. As required by the Site's Part 373 Permit, this evaluation includes a delineation of the limits of hydraulic control in areas with sufficient data for such delineation.

#### **3.1 Groundwater Extraction**

As noted in Section 2.1.2, Table A-1 of Appendix A contains a table of volumes pumped in 2013 from the Site's groundwater extraction wells.

##### **3.1.1 Northern Part of the Site**

Hydraulic control and contaminant removal in the northern part of the Site was accomplished by the operation of the TFA and P001 Area extraction well systems.

###### **3.1.1.1 Parking Lot 001 Area**

The three extraction wells in the P001 Area (412, 413, and 414) are shown on Plate 1. The monthly flow from the P001 extraction wells ranged from 387,000 to 549,000 gallons in 2013, as shown on the table of extraction well pumping volumes, Table A-1 of Appendix A. Most of the contaminant mass removed in the P001 Area is pumped from the alluvial zone by extraction wells 412 and 414; the concentration of total VOCs in those two wells in 2013 was about 2 to 8 times higher than in well 413, which pumps only from the till/bedrock zone.

###### **3.1.1.2 Tank Farm Area**

TFA extraction well 415 (Plate 1) pumps from the till/bedrock zone and replaced extraction wells 408 and 409 in April 2009. In comparison to the P001 Area and WMA extraction wells, the volume extracted from well 415 is low and accounted for only 0.3% of groundwater extraction at the Site in 2013. However, the concentration of VOCs in well 415 is high relative to other extraction wells and the mass removed by well 415 is comparable to the mass removed by the three P001 Area extraction wells, which together pumped nearly 15 times more groundwater in 2013 than well 415.



### **3.1.2 Southern Part of the Site**

Wells 404 and 405 extract groundwater in the southern part of the Site and accounted for more than 95% of the groundwater volume extracted in 2013. As shown in Appendix A, combined monthly flows from the two WMA extraction wells ranged from 10.0 to 11.9 Mgal in 2013, with an average of 11.0 Mgal, about 10 percent less than in 2012.

## **3.2 Hydrogeology**

As explained in Section 1.2 and shown on Plate 1, the TFA is located in the northeastern part of the Site and the P001 Area is located in the northwestern part of the Site. The WMA, TVD/MLA, WBA, and SBA are all located in the southern part of the Site. The hydrogeology of the northern and southern parts of the Site is discussed separately in the following sections.

### **3.2.1 Tank Farm Area**

The geologic units in the TFA consist primarily of till overlying bedrock, with some localized areas of fill. The monitoring wells in this area are completed in the fill, till, till/bedrock zone, or shallow bedrock. The shallow “alluvial zone” water-bearing unit present to the west of the TFA appears to be absent in the TFA itself. The till/bedrock zone is the most important water-transmitting unit in the TFA and extraction well 415 is screened in this unit.

The groundwater flow divide shown on the site-wide groundwater elevation contour map for the till/bedrock zone on October 1, 2013 (Figure 1-2) delineates the area where groundwater is captured by extraction well 415. Outside this area of capture, the direction of groundwater flow in the till/bedrock zone is generally to the west toward the P001 Area and to the southwest toward the TVD/MLA.

### **3.2.2 Parking Lot 001 Area**

The P001 Area is underlain by a bedrock valley originating as a closed depression in the bedrock surface with its deepest point situated between till/bedrock wells 393 and 395. Subsurface investigations in the early 1990s determined that the buried bedrock valley extends westward from this depression, passing through a narrow throat at bedrock well 378 on Lakeview Parkway (Plate 1), and opening up offsite to the southwest of well 378 beneath the Moore Tire property. In

the P001 Area, this bedrock valley contains four hydrogeologic units, from lowermost to uppermost: (1) weathered bedrock, (2) till, (3) sand, silt, and gravel, and (4) fill, which is more than 20 feet thick in some places. The primary water-bearing units in the P001 Area are the till/bedrock zone (straddling units 1 and 2) and the alluvial zone (unit 3).

Detailed groundwater elevation contour maps have been constructed semiannually since 1993 for both the till/bedrock zone and the alluvial zone in the P001 Area. Figure 1-2 shows the groundwater elevation contours for the till/bedrock zone in the P001 Area on October 1, 2013. The generalized direction of groundwater flow in the till/bedrock zone is indicated by the flow arrows on this map, and the influence of P001 Area extraction wells 413 and 414 in the till/bedrock zone is apparent. Figure 1-2 also shows a groundwater flow divide roughly coincident with the route of Lake View Parkway. On the eastern side of this flow divide, groundwater flow in the till/bedrock zone is captured by the P001 Area extraction wells. On the western side of the divide, groundwater flows to the southwest across the Moore Tire property and onto the northern part of the WMA. This groundwater flow in the till/bedrock zone is ultimately captured by WMA extraction well 404.

The location of this groundwater flow divide in the till/bedrock zone fluctuates in response to variability in pumping rates of the P001 Area extraction wells. During periods of reduced pumping, the flow divide lies farther east of the property line between the Site and the Moore Tire and Owego Bowl properties, and closer to the P001 Area extraction wells.

Figure 1-3 shows the groundwater elevation contours for the alluvial zone in the P001 Area on October 1, 2013. The influence of P001 Area extraction wells 412 and 414 on groundwater flow in the alluvial zone is similar that shown on Figure 1-2 for wells 413 and 414 in the till/bedrock zone. The groundwater flow divide in the alluvial zone during the fourth quarter of 2013 was located west of Lake View Parkway. Groundwater in the alluvial zone east of the flow divide is captured by the P001 Area extraction wells. Groundwater on the west side of the divide flows to the southwest through a zone of coarse alluvium extending across the center of the Moore Tire property and back onto the Owego facility north of Building 352. As is the case with groundwater in the till/bedrock zone, groundwater in the alluvial zone that is not captured by the P001 Area extraction wells is ultimately captured by the WMA extraction wells.

### 3.2.3 Southern Areas

Weathered bedrock and till overlie competent bedrock in the southern part of the Site. In the southern and central portions of the southern part of the Site, till is overlain by relatively permeable outwash sand and gravel and, in some areas, by low-permeability glaciolacustrine silt. The entire area is covered by a surficial layer of post-glacial alluvium. (Note: This surficial alluvium is different from the deeper “alluvial zone” discussed elsewhere in this report.)

#### 3.2.3.1 Tower View Drive and Waste Management Areas

The direction of groundwater flow in the till/bedrock zone of the southern part of the Site on July 1, 2013 is shown by the flow arrows on Figure 1-2. In the east-central portion of the Site, groundwater generally flows to the southwest through the TVD/MLA and toward WMA extraction well 404. Groundwater flow in the till/bedrock zone through the northern portion of the WMA is generally to the southwest toward WMA extraction well 404. Extraction well 405 pumps primarily from the alluvial zone (sand and gravel) and, therefore, does not significantly affect groundwater flow in the till/bedrock zone.

#### 3.2.3.2 Southern Boundary Area

As shown on Figure 1-3, flow in the till/bedrock zone of the SBA is generally to the northeast and north toward extraction well 404. The limit of groundwater capture by WMA extraction well 404 in the till/bedrock zone extends off site to the south of the railroad tracks (Figure 1-2, note potentiometric contour “799”).

An alluvial zone consisting primarily of sand and gravel overlies till in the SBA. As shown on Figure 1-3, horizontal gradients in the alluvial zone of the SBA are very low (less than 0.01) in the vicinity of the railroad tracks. The southern limit of capture by WMA extraction wells 404 and 405 in the alluvial zone, as indicated by potentiometric contour “800” on Figure 1-3, was offsite beneath the Route 17C interchange in July 2013.

## 3.3 Hydrogeochemistry

In the P001 Area and southern parts of Site, TCA, TCE and their transformation products are the primary parameters of concern. The site-wide distributions of TCA, TCE, and their transformation

products are shown on a series of isoconcentration contour maps for the till/bedrock and alluvial zones (Figures 3-1 through 3-4). Methylene chloride is limited in distribution to a few wells in the TFA and P001 Area. Figure 3-5 is an isoconcentration contour map for methylene chloride in the till/bedrock zone.

### **3.3.1 Chemical Transformations**

Transformation of TCA and TCE can occur at various rates in different parts of the same groundwater plume. As a result, characterizing the spatial distribution and changes in concentration of these constituents and their transformation products is difficult if one examines only the source constituents (TCA or TCE). The isoconcentration contour maps (Figures 3-1 through 3-4) show data incorporating mass lost due to transformation of TCA or TCE by reductive dehalogenation (in this case, the loss of chlorine ions). This was done by expressing the concentrations of all chemical degradation products in terms of the source constituent. The TCA-series concentration was calculated by multiplying concentrations of 11-DCA, 11-DCE, and chloroethane by the ratio of the molecular weight of TCA to the molecular weight of each degradation product, and then summing the products. In this way, all concentrations of TCA, 11-DCA, 11-DCE, and chloroethane dissolved in groundwater for a particular sample are expressed as a total TCA-series concentration, thereby approximating the TCA concentration that theoretically could have been measured if none of the TCA had been transformed to its degradation products. The same procedure was performed for the TCE-series parameters such that the vinyl chloride, c12-DCE, and TCE concentrations were expressed as a total TCE-series concentration. The formulas for calculating these series concentrations are shown on Figures 3-1 through 3-4.

### **3.3.2 Tank Farm Area and Parking Lot 001 Area**

The following discussion focuses on the groundwater chemistry of the alluvial and till/bedrock zones in the Tank Farm Area and Parking Lot 001 Area in the northern part of the Site.

#### **3.3.2.1 Alluvial Zone Chemistry**

Figures 3-1 and 3-2 show isoconcentration contours for the TCA- and TCE-series parameters in the alluvial zone, which includes sand and gravel units of glacial origin as well as alluvium. The isoconcentration contours shown on these two figures have not been extended to the east of the

P001 Area and into the Tank Farm Area because the alluvial zone is generally absent or has not been well-defined in that area. (Fill and till lie directly on top of bedrock in most of the TFA.) Figures 3-1 and 3-2 show plumes of both TCA- and TCE-series parameters extending from an area of concentrations historically greater than 1,000 ug/l (but now less than 1,000 ug/l) in the vicinity of well 613, to the southwest toward the southeast corner of the Moore Tire property (see well 383). These same constituents also are present in five on-site wells (398, 601, 602, 603, and 608) in the extreme western portion of the P001 Area north of Building 352 and north of the WMA. East of the groundwater flow divide shown on Figures 3-1 and 3-2, the TCA- and TCE-series plumes are captured by P001 Area extraction wells 412 and 414. The groundwater flow divides on Figures 3-1 and 3-2 are the same as the divides shown on the groundwater elevation contour map for the alluvial zone (Figure 1-3).

### **3.3.2.2 Till/Bedrock Zone Chemistry**

Isoconcentration contour maps for TCA- and TCE-series parameters in the till/bedrock zone are shown on Figures 3-3 and 3-4. The TCA-series and TCE-series plumes in the northern part of the Site extend from the Tank Farm source area westward toward the P001 Area extraction wells and across Lakeview Parkway onto the Moore Tire property west of the P001 Area extraction wells. The plumes in the TFA with concentrations greater than 1,000 ug/l are mostly captured by extraction well 415. P001 Area extraction wells 413 and 414 intercept groundwater plumes between the eastern groundwater flow divide created by extraction well 415 in the TFA and the western flow divide situated around Lake View Parkway. These flow divides are identical to those shown on the groundwater elevation contour map for the till/bedrock zone (Figure 1-2).

The distribution of methylene chloride in the till/bedrock zone of the northern part of the Site during the fourth quarter of 2013 is shown on Figure 3-5. Concentrations of methylene chloride have decreased significantly in the till/bedrock zone since the 1990s, and what little methylene chloride remains appears to be captured by extraction well 414. The maximum concentration of methylene chloride in a monitoring well was 9 ug/l at well 612 and the estimated extent of the methylene chloride plume is shown on Figure 3-5.

### 3.3.3 Southern Areas

The isoconcentration contour maps (Figures 3-1 through 3-4) show the distribution of TCA- and TCE-series parameters in the southern part of the Site during the third quarter of 2013. Methylene chloride was not contoured in the southern part of the Site because it was not detected there.

#### 3.3.3.1 Alluvial Zone Chemistry

The distributions of TCA- and TCE-series parameters in the alluvial zone of the southern part of the Site are shown on Figures 3-1 and 3-2.

In the southern alluvial zone, a low-level (less than 10 ug/l) TCA-series plume (Figure 3-1) is located in the vicinity of monitoring wells 318, 319, 322, 323, 625, and 627 near the southern boundary of the Site. This plume does not appear to extend off-site because TCA-series parameters were not detected at series concentrations greater than 0.5 ug/l in offsite wells 540, 541, 542, and 543 in July 2013. In contrast, the TCE-series plume in the southern alluvial zone (Figure 3-2) extends offsite, south of the railroad tracks in the Route 17C interchange, where low concentrations of VOCs (less than 3 ug/l) have been detected at wells 541, 542, and 543, as shown on Figure 3-2.

Figure 3-1 shows TCA plumes originating on-Site in the central TVD/MLA and in the central part of the WMA. Groundwater chemistry data from wells 621 and 623 suggests that the eastern TCA-series plumes in the TVD/MLA and WMA are captured by WMA extraction wells 404 and 405. The southern limit of the TCA-series plume in the TVD/MLA probably lies north of shallow monitoring well 374 on the north side of Mirror Lake (Figure 3-1), where concentrations are typically at or below the limits of detection. Well 374 monitors a shallow alluvial unit that is different from the alluvial zone outwash unit monitored by other wells in the southern part of the Site.

#### 3.3.3.2 Till/Bedrock Zone Chemistry

Figures 3-3 and 3-4 show the TCA- and TCE-series isoconcentration contours for the till/bedrock zone. With regard to the distribution of TCA-series parameters in the southern part of the Site, Figure 3-3 shows a plume originating north of Tower View Drive near the southern end of Building 002, a plume originating from off-Site west of Barnes Creek (in the vicinity of wells 160 and 162), and a plume centered on the northern part of the WMA east of Building 352 and northeast of the

Old Waste Treatment Plant (Old WTP). The TVD/MLA and WMA TCA-series plumes (Figure 3-3) merge south of the Old WTP, and are captured by WMA extraction well 404.

The TCE-series isoconcentration contour map for the till/bedrock zone in the southern part of the Site is shown on Figure 3-4. Like the map showing the distribution of TCA-series parameters (Figure 3-3), this map shows a plume with concentrations greater than 100 ug/l being drawn onto the Site from the west near monitoring wells 160 and 162 and a plume centered on the Old WTP with a lobe extending to the south toward SBA monitoring wells 626 and 628.

### 3.3.4 Graphical and Statistical Evaluations

Graphs of TCA- and TCE-series concentrations versus time for key monitoring and extraction wells for the years 2000 through 2013 are shown on Figure 3-6. These wells are located either near the boundaries of the Site in the P001, TFA, SBA, and WMA, or off-Site in the Moore Tire Area. They represent all of the wells that are sampled quarterly in accordance with the sampling plan presented in Appendix D.

Concentration trends in many of these wells are apparent by inspection. To determine whether the observed changes in chemical concentrations over time are statistically significant, analytical data from the past six years was evaluated using a non-parametric statistical test, as specified in Section 7.3.3 of the Groundwater Monitoring Plan. This statistical test for trend, the Mann-Kendall test, is based on the concept that a lack of trend should correspond to a time-series plot fluctuating randomly about a constant mean level, without a visually apparent upward or downward pattern. If an increasing trend really exists, then the sample taken first from any randomly selected pair of measurements should have a lower concentration, on average, than the measurement collected at a later point. The Mann-Kendall test does not require that the data be normally distributed and is valid even where data are missing, tied, or censored at the reporting limit (e.g., “not detected at limit X”).

ProUCL version 4.1, a statistical software package, was used to identify statistically significant trends at a significance level of  $\alpha = 0.05$ , which corresponds to a confidence limit of 95%. ProUCL was created for USEPA to address statistical issues described in various CERCLA and RCRA

guidance documents. The period for trend analysis was seven years (28 quarterly samples) from January 2007 to October 2013.

The statistical trend test results for these wells are summarized on Table 3-1. As shown on Table 3-1, the concentration trend in 14 of the 38 tests (19 wells tested, each for TCA- and TCE-series) is indeterminate, i.e., neither a statistically increasing nor decreasing trend could be confirmed.

In the P001 Area, concentrations of TCE-series parameters are increasing over the 7-year test period at till/bedrock monitoring well 393 near Lake View Parkway and at extraction wells 412, 413, and 414. The concentration trend for TCA-series parameters at well 393 is also increasing over the same period.

In the Tank Farm Area, concentrations of both TCA-series and TCE-series parameters are decreasing at extraction well 415 (based on four years of data).

In the off-Site Moore Tire Area, concentrations of TCA- and TCE-series parameters are increasing at till/bedrock zone monitoring well 522 and are either decreasing or indeterminate at alluvial zone monitoring wells 529, 532, and 534.

In the Southern Boundary Area, concentrations of both TCA- and TCE-series parameters are decreasing at alluvial zone monitoring wells 625, 319, and 322, all located near the Site's southern property boundary. The TCE-series trend at well 625 is also decreasing. North of well 625, concentrations of both TCA-series and TCE-series parameters are increasing at well 318 and are also increasing for TCE-series parameters at well 319. At alluvial zone well 323 further to the north, concentrations of TCE-series parameters are decreasing over the 7-year test period.

Finally, in the Waste Management Area, the trend in TCE-series concentrations is decreasing at extraction well 404 which pumps from both the alluvial zone and from the till/bedrock zone.



**Table 3-1. Statistical Evaluation of Trends in Water Quality  
at Quarterly Monitoring Wells (2007-2013)**

Site Area	Well	TCA-Series Trend	TCE-Series Trend	Hydrogeologic Zone Monitored
<b>P001 Area (Monitoring)</b>	393	Increasing	Increasing	Till/Bedrock
	399	Decreasing**	None	Alluvial
	606	Decreasing	None	Alluvial
	607	None	Decreasing	Till/Bedrock
<b>P001 Area (Extraction)</b>	412	None	Increasing	Alluvial
	413	None	Increasing	Till/Bedrock
	414	None	Increasing	Alluvial & Till/Bedrock
<b>Tank Farm Area* (Extraction)</b>	415	Decreasing	Decreasing	Till/Bedrock
<b>Moore Tire Area (Off-Site Monitoring)</b>	522	Increasing	Increasing	Till/Bedrock
	529	None	Decreasing**	Alluvial
	532	None	None	Alluvial
	534	Decreasing**	Decreasing**	Alluvial
<b>Southern Boundary Area (Monitoring)</b>	318	Increasing	Increasing	Alluvial
	319	Decreasing	Increasing	Alluvial
	322	Decreasing	None	Alluvial
	323	None	Decreasing	Alluvial
	625	Decreasing	Decreasing	Alluvial
<b>Waste Management Area (Extraction)</b>	404	None	Decreasing	Alluvial & Till/Bedrock
	405	None	None	Alluvial

The Mann-Kendall test was used to evaluate concentration trends at a significance level of  $\alpha = 0.05$ .

"None" means that the concentration trend is indeterminate.

\* Four years of data (16 quarters) was available for extraction well 415, from 2010-2013.

\*\* May not be significant because most detections are less than 1 ug/L.

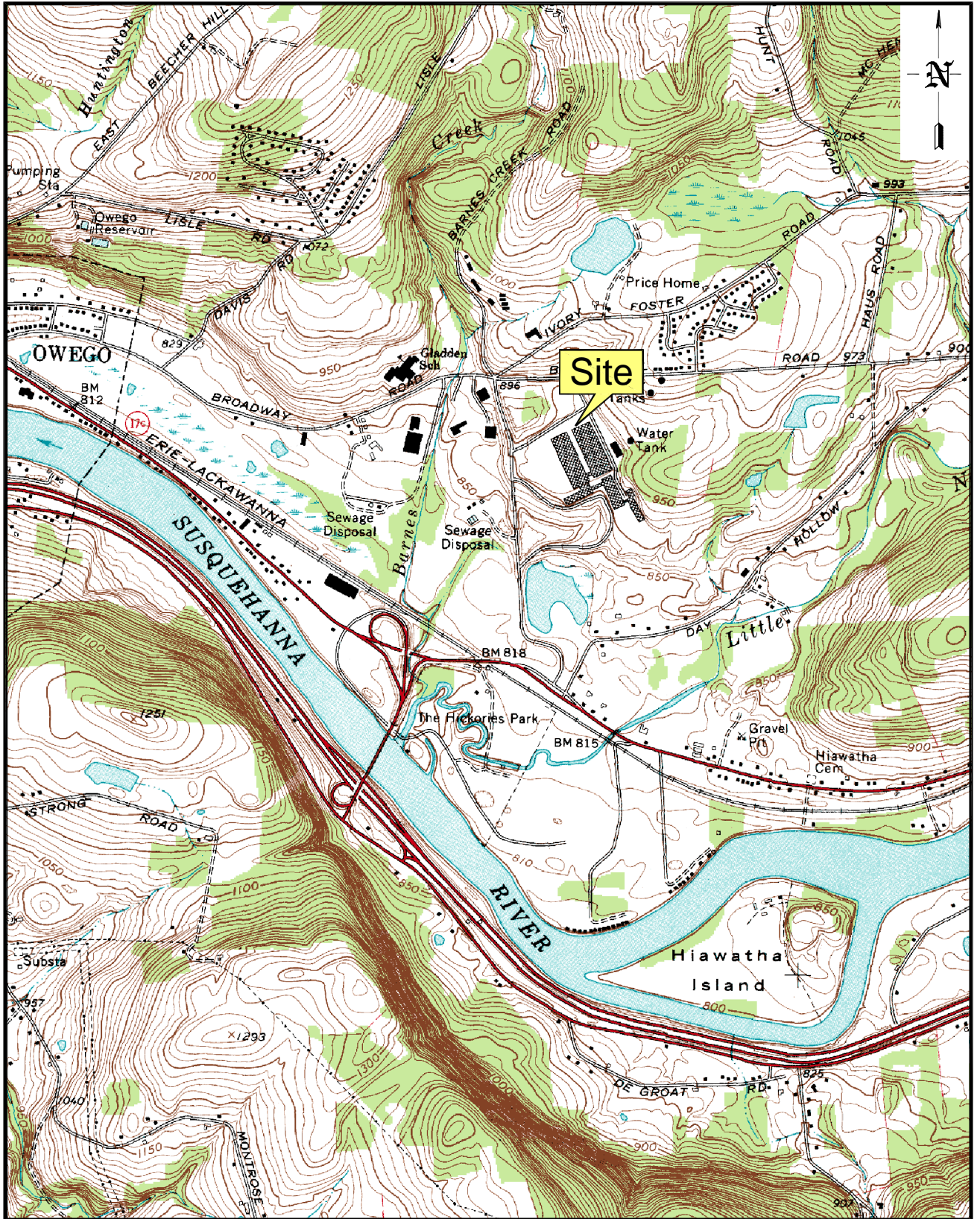
### 3.3.5 VOC Mass Removal

Table A-2 in Appendix A shows the dissolved VOC mass pumped by the groundwater extraction wells during 2013 and subsequently removed via the Site's packed-column air stripping tower. The total VOC mass was calculated by taking the monthly GTF influent concentration from NPDES compliance sampling and multiplying by the monthly volume pumped through the air stripping tower. [Note: The volume pumped through the air stripper (140.7 Mgal) differs slightly from the total volume pumped from the extraction wells (137.7 Mgal) due to metering differences.] By these calculations, the total VOC mass removed in 2013 was 359 pounds, for a cumulative total VOC removal of nearly three tons since 1998.

### 3.3.6 Maps of Total VOCs, TCA, and TCE

As required by the GMP, Figure 3-7 is a map showing the total concentration in groundwater of VOCs on the Site's parameter list, as specified on Table 1-1 of the GMP and Module II, Table II-3 of the Part 373 Permit. The map shows results for northern wells sampled during the fourth quarter of 2013 and southern wells sampled during the third quarter of 2013. The total VOC value posted at each well has been rounded to two significant figures (or to one significant figure if less than 1 ug/l).

As required by the GMP, Figures 3-8 and 3-9 are maps of the TCA and TCE distribution, respectively, showing only these VOCs and not the sum of their transformation series component VOCs. The approximate boundaries of both the alluvial and till/bedrock zone plumes at a limit of 1 ug/l are not shown on these maps. However, these boundaries would be similar to the plume limits shown on the TCA- and TCE-series isoconcentration maps (Figures 3-1 through 3-4) because TCA and TCE generally are the greatest contributors to total VOC concentration at most of the monitoring wells.



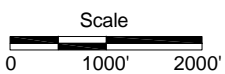
Portion of the Apalachin, NY  
7.5-minute USGS Quadrangle  
(1988)

Figure 1-1



Corporate Environmental Affairs

Site Location Map



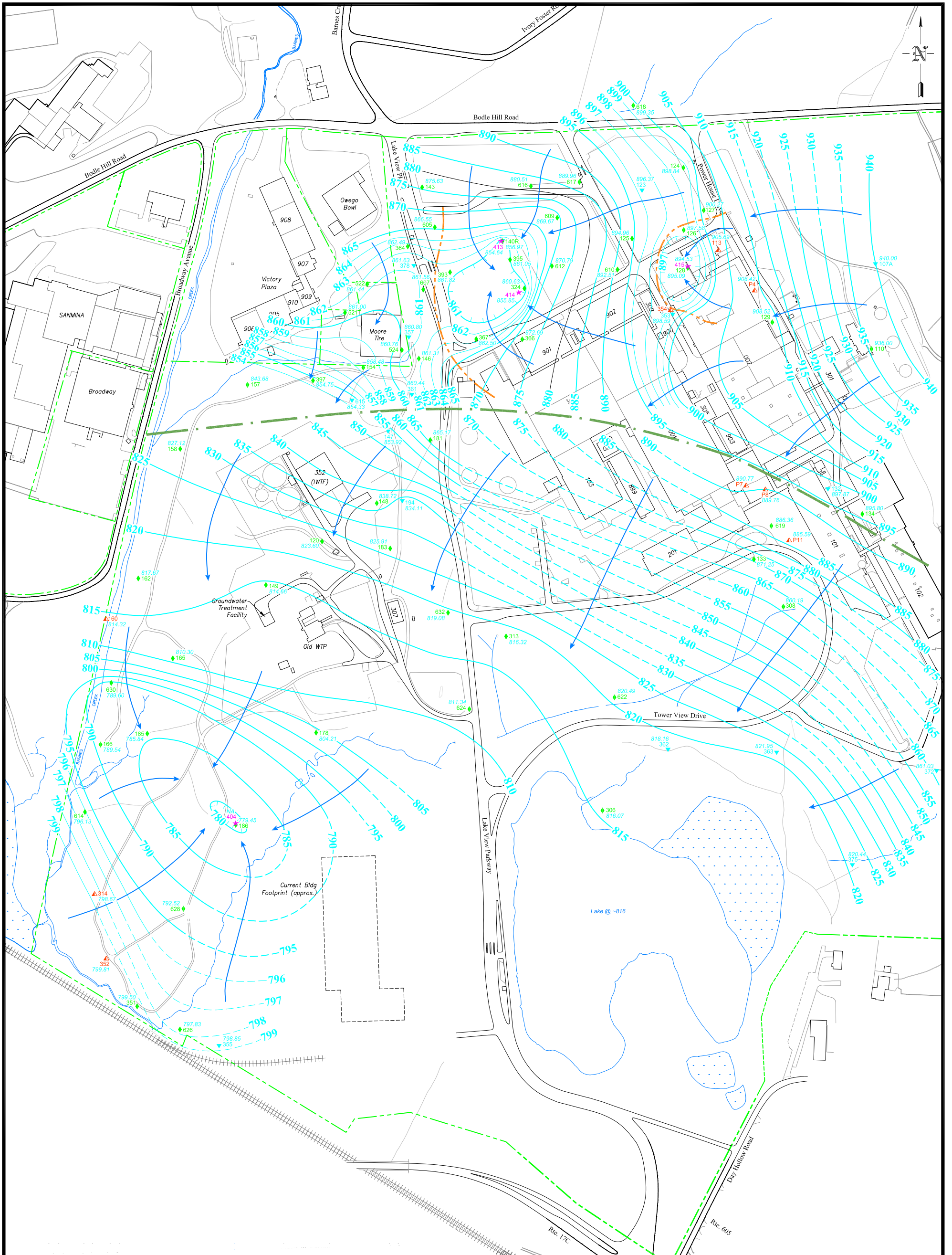
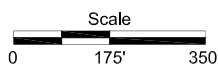



Figure 1-2

- ▼ - Bedrock monitoring well
- ▲ - Till monitoring well
- ◆ - Soil/Bedrock monitoring well
- ◆ - Withdrawal well
- ★ - Property Line
- ☁ - Swamp area
- - Direction of Groundwater Flow
- 798.85 - Groundwater Elevation (feet amsl)
- 795 - Groundwater Elevation Contour (feet amsl)
- - - - - Inferred Groundwater Elevation Contour
- — — — - Groundwater Flow Divide
- — — — - Line of Separation Between Northern and Southern Sampling Events

Northern Area wells measured October 1, 2013; Southern Area wells measured July 1, 2013.

Note: Some wells that monitor the lower till were used to construct this map.






Owego, New York

### Till/Bedrock Groundwater Elevation Contour Map Third and Fourth Quarters, 2013

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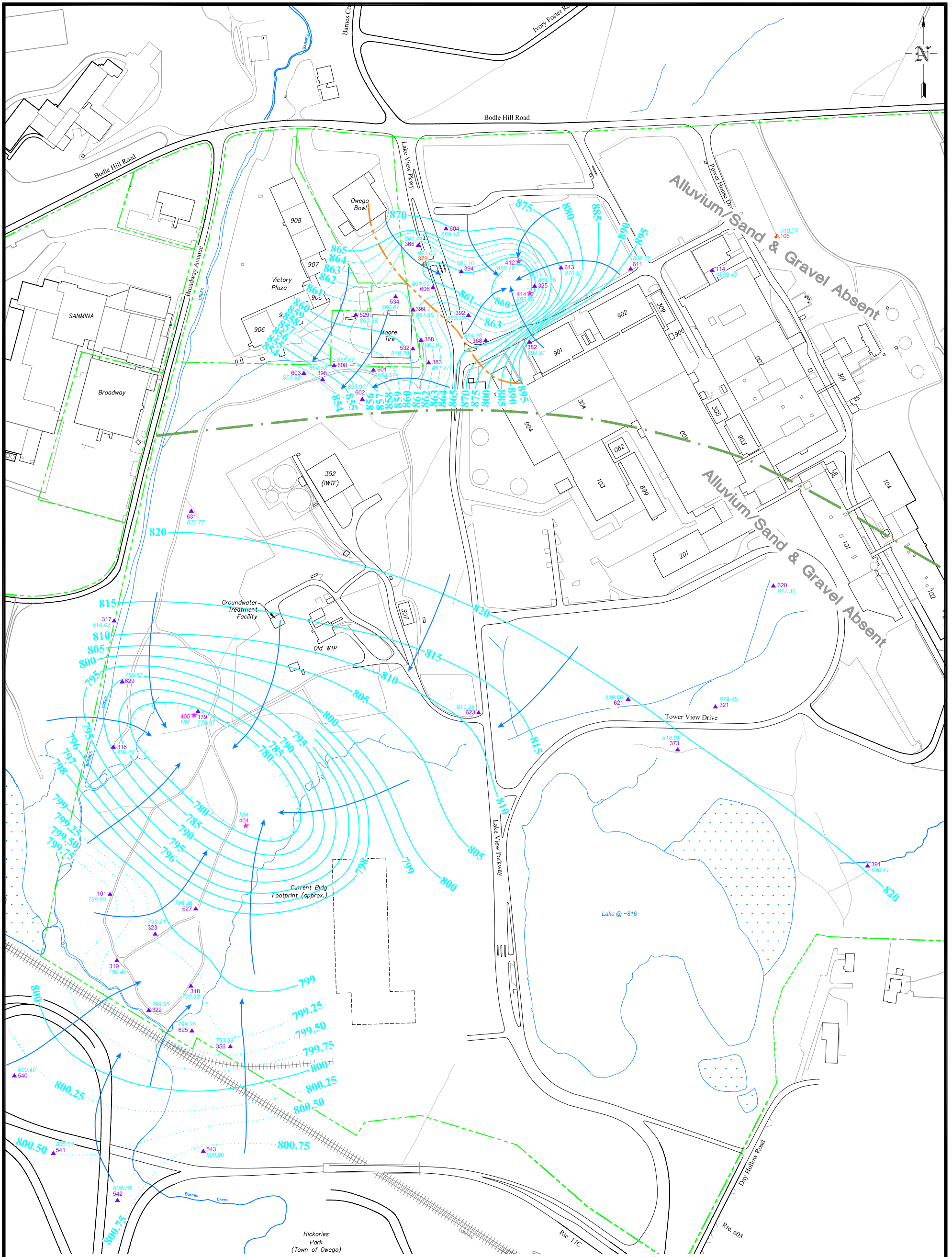
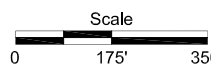


Figure 1-3

- ▲ - Soil monitoring well
- ▲ - Till monitoring well
- ★ - Withdrawal well
- - Property Line
- - Line of Separation Between Northern and Southern Sampling Events
- - Swamp area
- 800.90 - Groundwater Elevation (feet amsl)
- NM - Not Measured
- 800 - Groundwater Elevation Contour (feet amsl)
- - Supplemental Groundwater Elevation Contour
- - Direction of Groundwater Flow
- - Groundwater Flow Divide

Note: Groundwater elevations for wells P1, P2, 161, 163, 386, 387 and 374 were not used because these wells monitor a shallow alluvial unit that is different from the outwash unit monitored by other wells in the southern areas.

Northern Area wells measured October 1, 2013; Southern Area wells measured July 1, 2013.



**Alluvium/Sand & Gravel  
Groundwater Elevation Contour Map  
Third and Fourth Quarters, 2013**

DRAWN BY: MHM

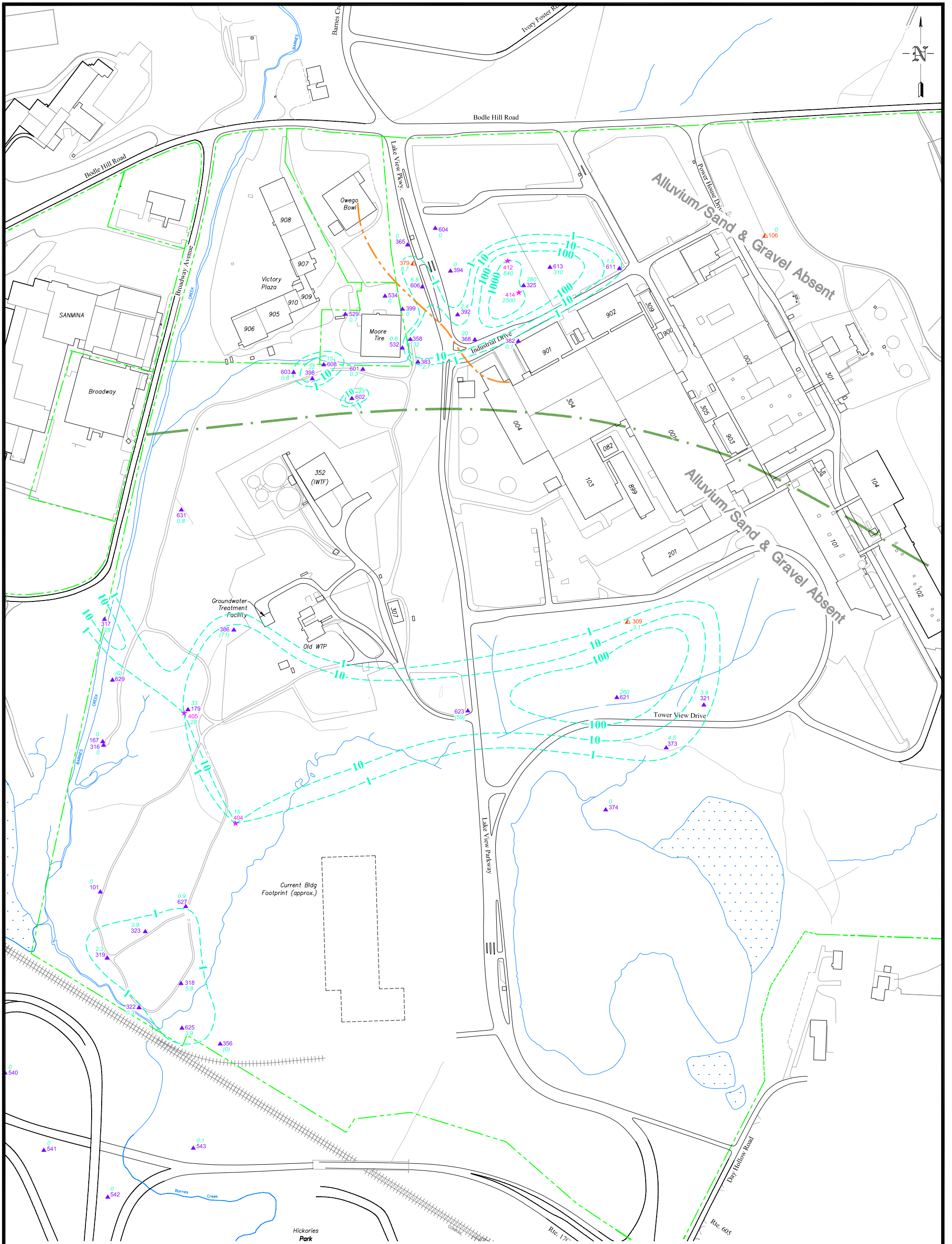
DATE: 2/18/14

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93004-073-L2





- ▲ - Soil monitoring well
- ▲ - Till monitoring well
- ★ - Withdrawal well
- 0.1 - TCA-Series Concentration (µg/l)
- (0) - Previous sampling result (for wells sampled annually)
- ☁ - Swamp area
- 100— - TCA-Series Concentration Contour (ug/l)
- — - Groundwater Flow Divide
- — — - Property Line
- · — · — - Line of Separation Between Northern and Southern Sampling Events

Calculation:  

$$\text{TCA Series} = \text{TCA} + 1,1\text{-DCA} \left( \frac{133.42}{98.97} \right) + 1,1\text{-DCE} \left( \frac{133.42}{96.95} \right) + \text{CEA} \left( \frac{133.42}{64.52} \right)$$
 where
 

TCA = 1,1,1-Trichloroethane
1,1-DCA = 1,1-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
CEA = Chloroethane

Notes: Wells 106, 309 and 379, which monitor the upper till, were also used to construct this map. Values shown have been rounded to two significant figures or one significant figure if less than 1 µg/l.  
 Extraction wells 413 and 414 pump from the till/bedrock zone.  
 Extraction wells 412 and 414 pump from the alluvial zone.

Northern Area wells sampled April 2013.  
 Southern Area wells sampled January 2013.



Figure 3-1



**Alluvium/Sand & Gravel TCA-Series Isoconcentration Contour Map Third and Fourth Quarters, 2013**

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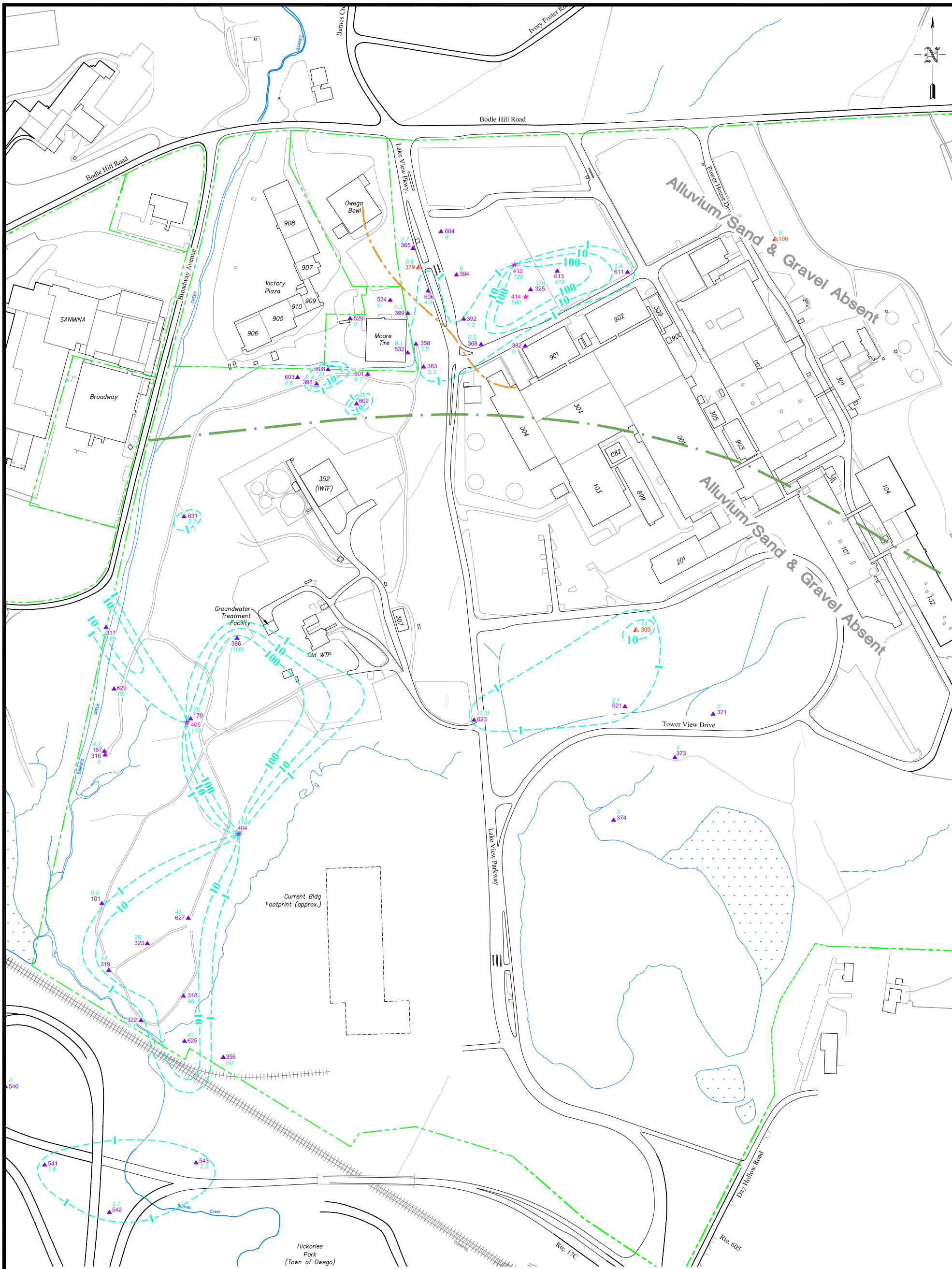


Figure 3-2

- ▲ - Soil monitoring well
- ▲ - Till monitoring well
- ★ - Withdrawal well
- 2.1 - TCE-Series Concentration (µg/l)
- (1.3) - Previous sampling result (for wells sampled annually)
- - - 100 - TCE-Series Concentration Contour (µg/l)
- - - Groundwater Flow Divide
- - - Property Line
- - - Line of Separation between Northern and Southern Sampling Events
- - - Swamp area

Calculation:  

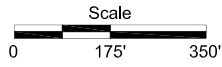
$$\text{TCE Series} = \text{TCE} + \text{CIS} \left( \frac{131.4}{96.95} \right) + \text{VC} \left( \frac{131.4}{62.5} \right)$$


where

- TCE = Trichloroethene
- CIS = cis-1,2-Dichloroethene
- VC = Vinyl Chloride

Notes: Wells 106, 309 and 379, which monitor the upper till, were also used to construct this map. Values shown have been rounded to two significant figures or one significant figure if less than 1 µg/l.  
 Extraction wells 413 and 414 pump from the till/bedrock zone.  
 Extraction wells 412 and 414 pump from the alluvial zone.

Northern Area wells sampled October 2013.  
 Southern Area wells sampled July 2013.






Owego, New York

### Alluvium/Sand & Gravel TCE-Series Isoconcentration Contour Map

#### Third and Fourth Quarters, 2013

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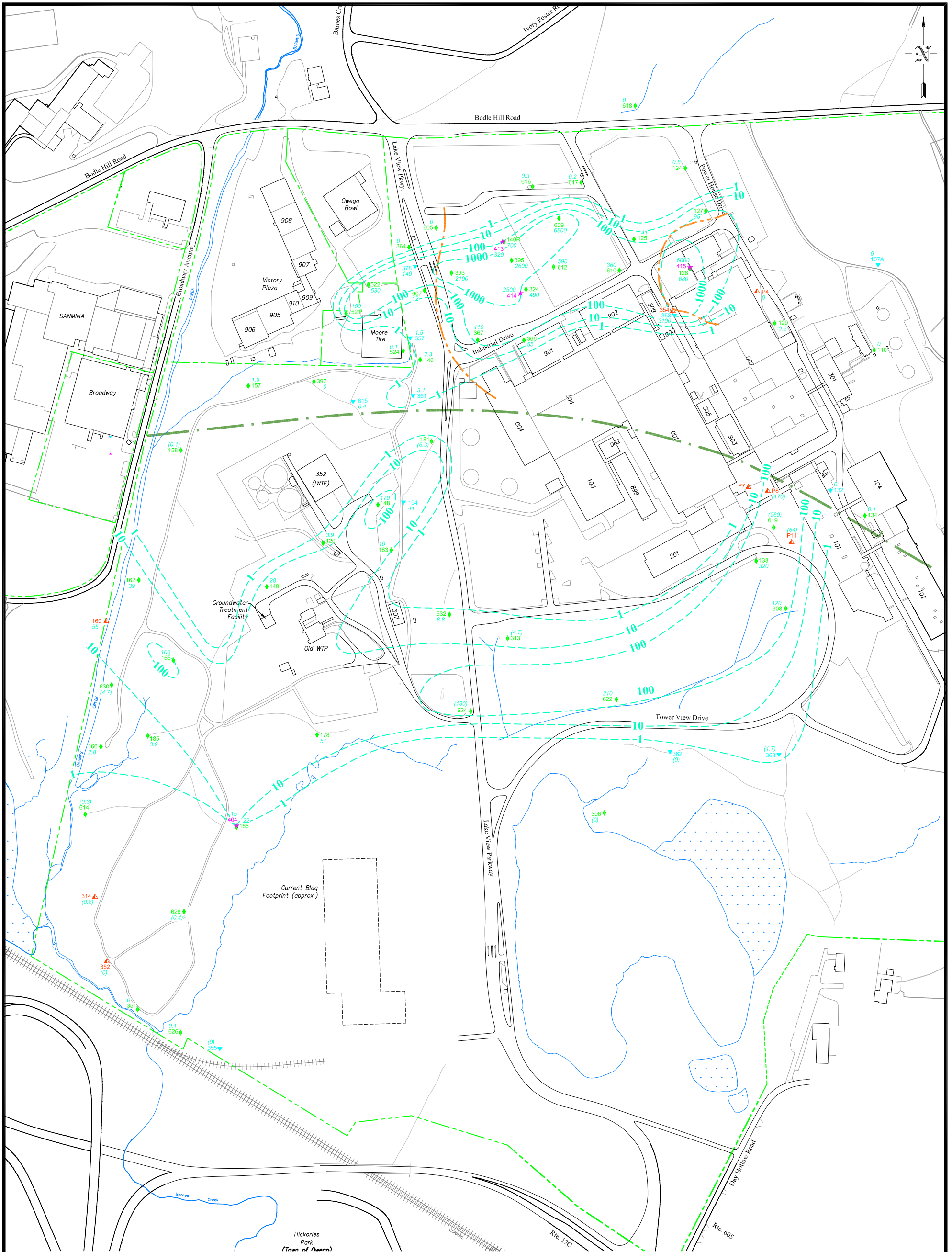


Figure 3-3

- ▼ - Bedrock monitoring well
- ◆ - Soil/Bedrock monitoring well
- ▲ - Till monitoring well
- ★ - Withdrawal well
- 2.8 - TCA-Series Concentration (ug/l)
- (0.3) - Previous sampling result (from wells sampled annually)
- 100 - TCA-Series Concentration Contour (ug/l)
- - Groundwater Flow Divide
- - Property Line
- - Line of Separation Between Northern and Southern Sampling Events
- - Swamp area

Calculation:  


$$\text{TCA Series} = \text{TCA} + 1,1\text{-DCA} \left( \frac{133.42}{98.97} \right) + 1,1\text{-DCE} \left( \frac{133.42}{96.95} \right) + \text{CEA} \left( \frac{133.42}{64.52} \right)$$
 where
 

TCA = 1,1,1-Trichloroethane
1,1-DCA = 1,1-Dichloroethane
1,1-DCE = 1,1-Dichloroethene
CEA = Chloroethane

Northern Area wells sampled October 2013.  
 Southern Area wells sampled July 2013.

Notes: Some wells that monitor the lower till or the bedrock were used to construct this map.  
 Values shown have been rounded to two significant figures or one significant figure if less than 1 ug/l.






Owego, New York

### Till/Bedrock TCA-Series Isoconcentration Contour Map

#### Third and Fourth Quarters, 2013

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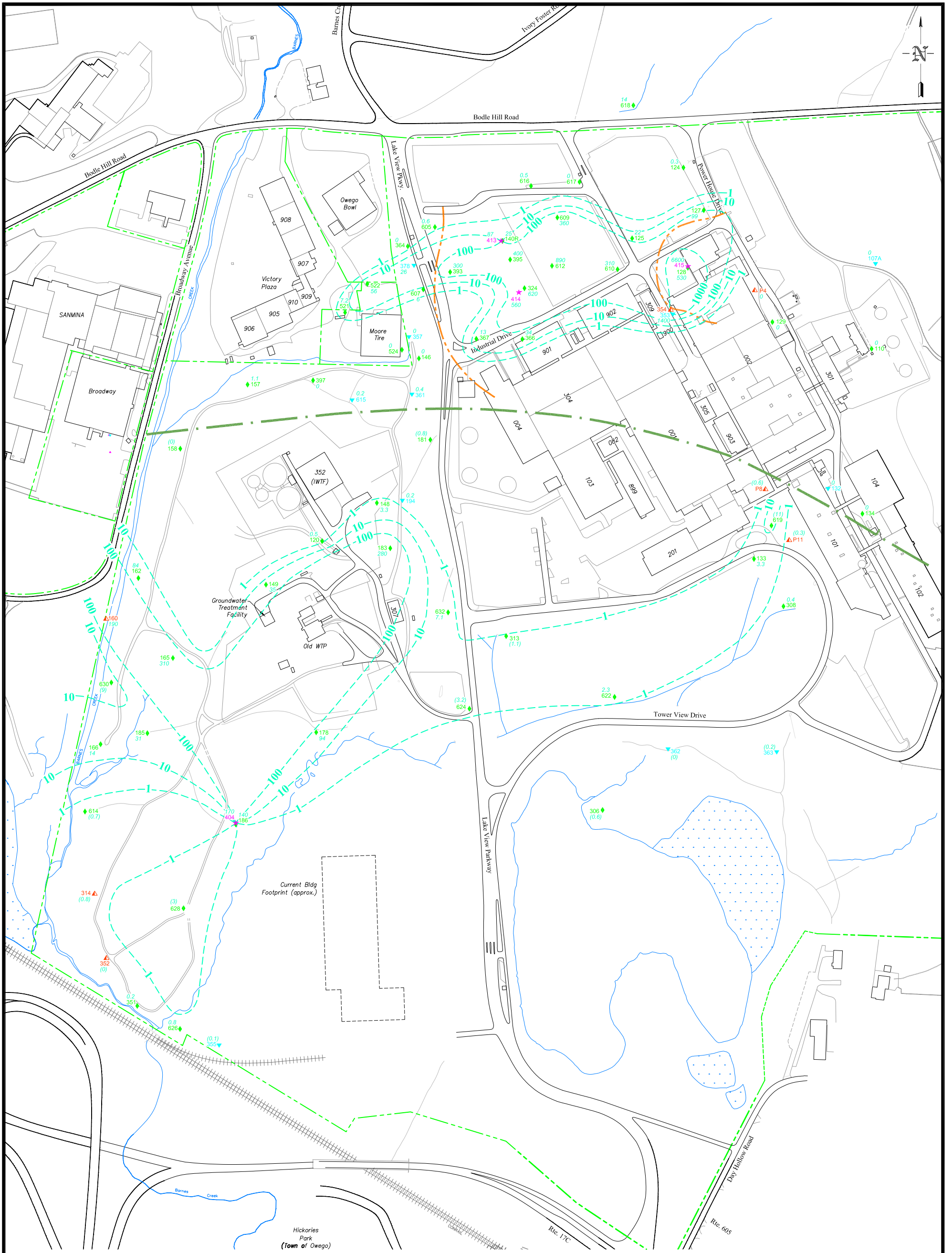


Figure 3-4

- ▼ - Bedrock monitoring well
- ◆ - Soil/Bedrock monitoring well
- ▲ - Till monitoring well
- ★ - Withdrawal well
- 14 - TCE-Series Concentration (µg/l)
- (0.7) - Previous sampling result (for wells sampled annually)
- 100 - TCE-Series Concentration Contour (µg/l)
- - - - Groundwater Flow Divide
- — — — Property Line
- — — — Line of Separation Between Northern and Southern Sampling Events
- — — — Swamp area

Calculation:

$$\text{TCE Series} = \text{TCE} + \text{CIS} \left( \frac{131.4}{96.95} \right) + \text{VC} \left( \frac{131.4}{62.5} \right)$$

where

- TCE = Trichloroethene
- CIS = cis-1,2-Dichloroethene
- VC = Vinyl Chloride

Notes: Some wells that monitor the lower till or the bedrock were used to construct this map. Values shown have been rounded to two significant figures, or one significant figure if less than 1 µg/l.

Northern Area wells sampled October 2013.  
Southern Area wells sampled July 2013.



Till/Bedrock TCE-Series  
Isoconcentration Contour Map  
Third and Fourth Quarters, 2013

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CHECKED & APPROVED BY: CAR

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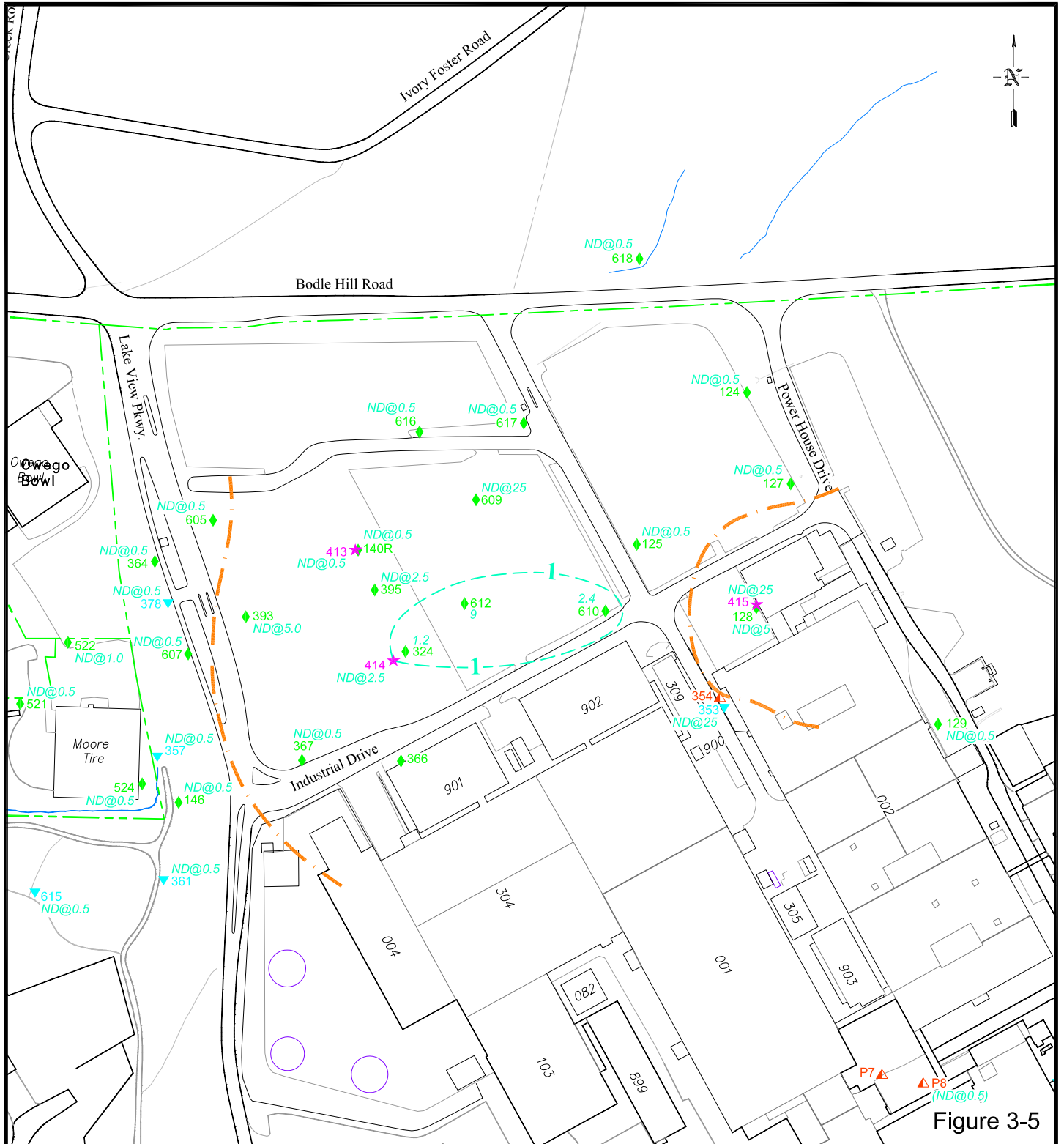


Figure 3-5



Owego, New York

Till/Bedrock Methylene Chloride  
Concentration Contour Map  
Fourth Quarter, 2013

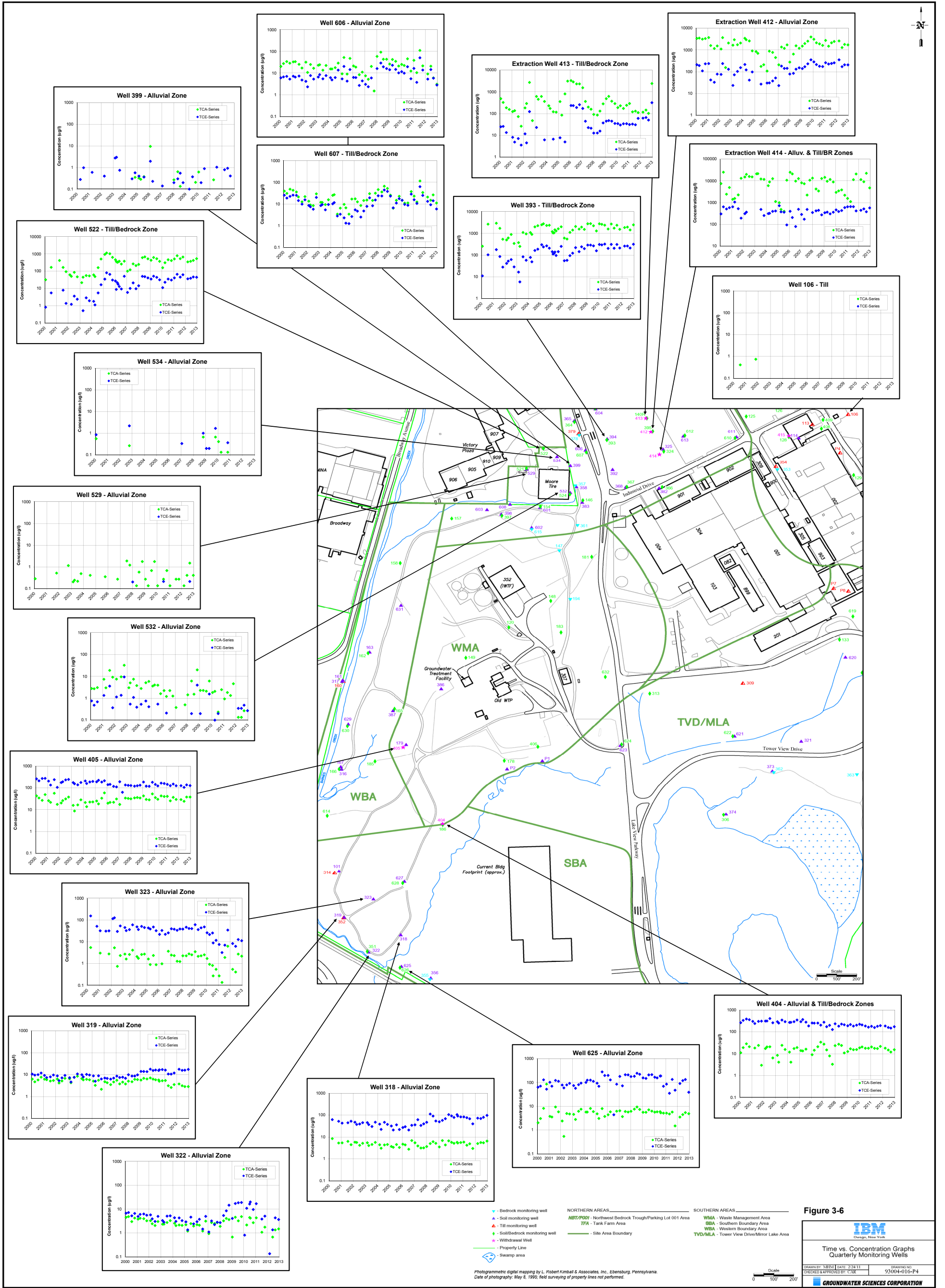
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CHECKED & APPROVED BY: CAR

DRAWING NO.  
93004-081-F1

**GROUNDWATER SCIENCES CORPORATION**

- ▼ - Bedrock monitoring well
- ◆ - Soil/Bedrock monitoring well
- ▲ - Till monitoring well
- ★ - Withdrawal well
- - - 1 - Methylene Chloride Concentration Contour (ug/l; October 2013)
- 1.2 - Methylene Chloride Concentration (ug/l; October 2013)
- ND@X - Not Detected at Laboratory Detection Limit "X"
- (ND@X) - Previous Sampling Result (for wells sampled annually)
- - - - Groundwater Flow Divide
- - - - Property Line





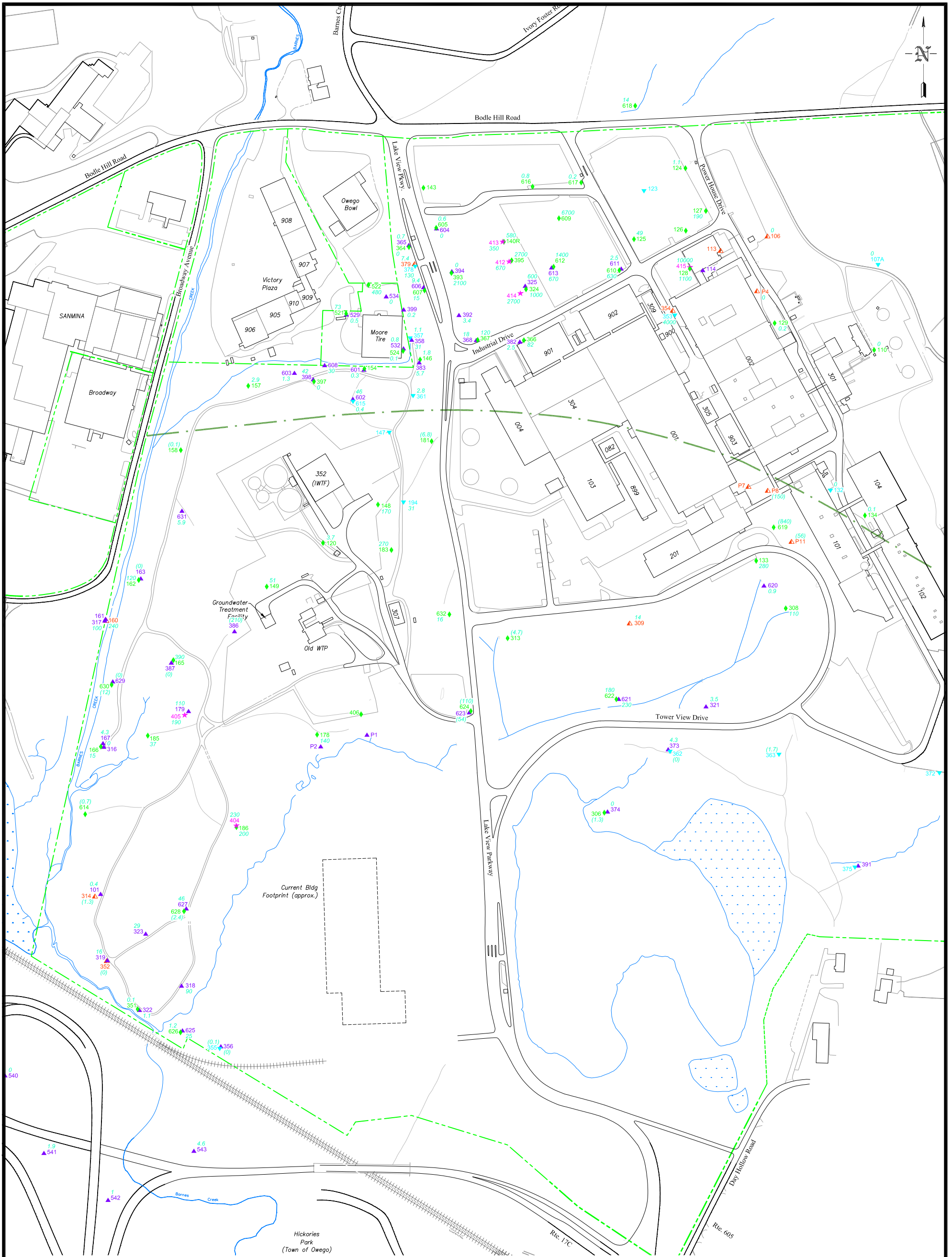



Figure 3-7

- ▼ - Bedrock monitoring well
- ▲ - Soil monitoring well
- ◆ - Soil/Bedrock monitoring well
- ▲ - Till monitoring well
- ★ - Withdrawal well
- 4.6 - Total VOCs Concentration (ug/l)
- (0.1) - Previous sampling result (for wells sampled annually)
- - Property Line
- - Site Area Boundary
- - Swamp area

Northern Area wells sampled October 2013; Southern Area wells sampled July 2013.  
 Note: Values shown have been rounded to two significant figures or one significant figure if less than 1 ug/l.






Owego, New York

### Total Volatile Organic Compounds (VOCs) Concentration in Groundwater (ug/l) Third and Fourth Quarters, 2013

DRAWN BY: MHM	DATE: 2/21/14	DRAWING NO.
CHECKED & APPROVED BY: CAR		93004-078-K1



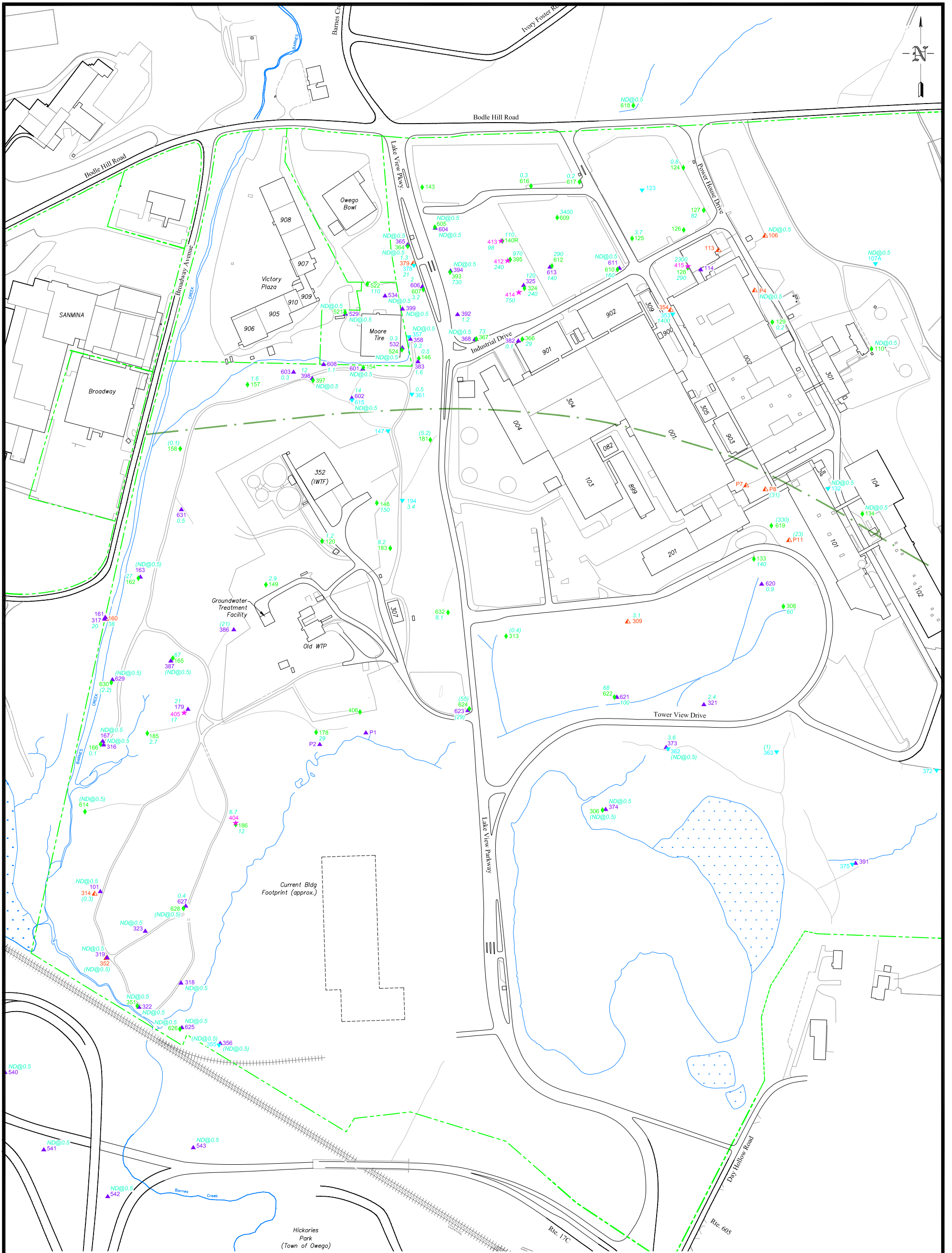



Figure 3-8

- 6.7 - 1,1,1-Trichloroethane Concentration (ug/l)
- ND@0.5 - Not Detected at Laboratory Detection Limit "X"
- (21) - Previous sampling result (for wells sampled annually)
- ▼ - Bedrock monitoring well
- ▲ - Soil monitoring well
- ◆ - Soil/Bedrock monitoring well
- ▲ - Till monitoring well
- ★ - Withdrawal well
- - Property Line
- - - - Site Area Boundary
- ▭ - Swamp area

Northern Area wells sampled October 2013; Southern Area wells sampled July 2013.  
 Note: Values shown have been rounded to two significant figures or one significant figure if less than 10 ug/l.






Owego, New York

### 1,1,1-Trichloroethane Concentrations Third and Fourth Quarters, 2013

DRAWN BY: MHM	DATE: 2/21/14	DRAWING NO.
CHECKED & APPROVED BY: CAR		93004-027-S1



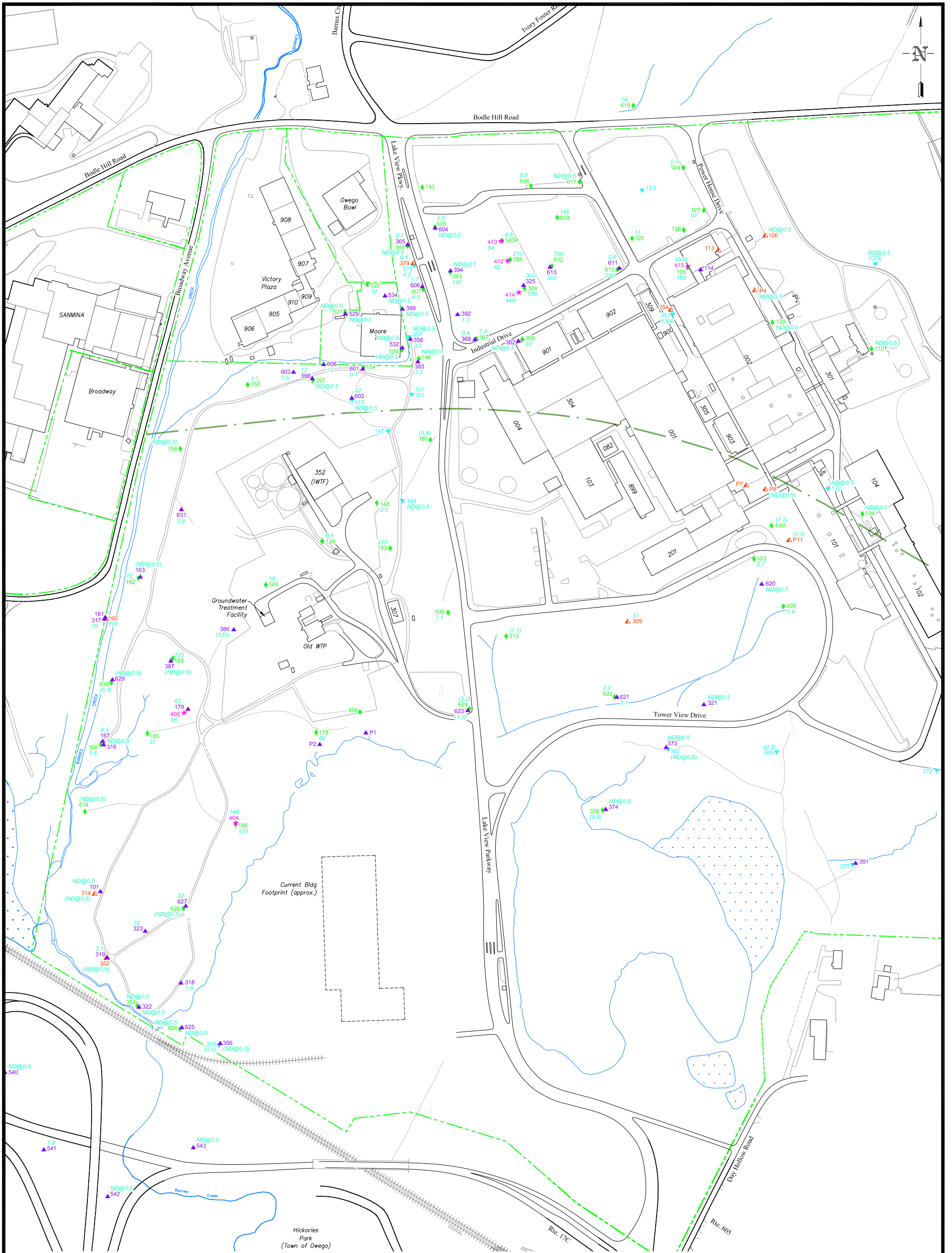
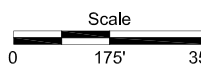



Figure 3-9

- 1.5 - Trichloroethene Concentration (ug/l)
- ND@0.5 - Not Detected at Laboratory Detection Limit "X"
- (5.7) - Previous sampling result (for wells sampled annually)
- ▼ - Bedrock monitoring well
- ▲ - Soil monitoring well
- ◆ - Soil/Bedrock monitoring well
- ▲ - Till monitoring well
- ★ - Withdrawal well
- - Property Line
- - - - - Site Area Boundary
- ▭ - Swamp area

Northern Area wells sampled October 2013; Southern Area wells sampled July 2013.

Note: Values shown have been rounded to two significant figures or one significant figure if less than 10 ug/l.




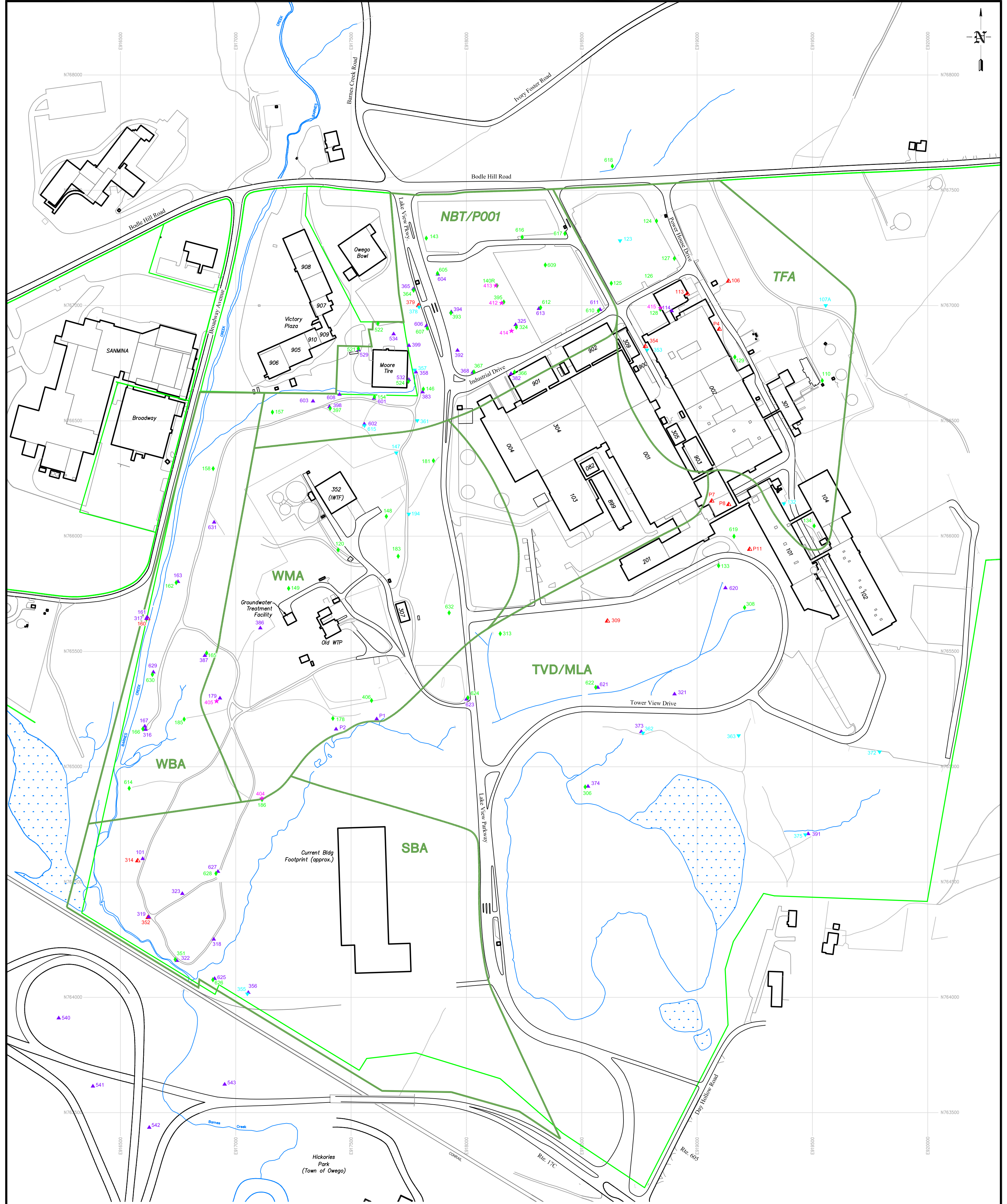


Owego, New York

### Trichloroethene Concentrations Third and Fourth Quarters, 2013

DRAWN BY: MHM	DATE: 2/21/14	DRAWING NO.
CHECKED & APPROVED BY: CAR		93004-028-S1






- ▼ - Bedrock monitoring well
- ▲ - Soil monitoring well
- ▲ - Till monitoring well
- ◆ - Soil/Bedrock monitoring well
- ★ - Withdrawal Well
- - Property Line
- ☁ - Swamp area

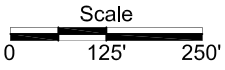
- |  |   |
|--|---|
| <b>NORTHERN AREAS</b>                                    | <b>SOUTHERN AREAS</b>                       |
| NBT/P001 - Northwest Bedrock Trough/Parking Lot 001 Area | WMA - Waste Management Area                 |
| TFA - Tank Farm Area                                     | SBA - Southern Boundary Area                |
| — - Site Area Boundary                                   | WBA - Western Boundary Area                 |
|  | TVD/MLA - Tower View Drive/Mirror Lake Area |

Plate 1



Well Location Map  
Corrective Action Monitoring Program

DRAWN BY: MHM	DATE: 8/12/13	DRAWING NO.
CHECKED & APPROVED BY: CAR		93004-016-Q1



**GROUNDWATER SCIENCES CORPORATION**

Photogrammetric digital mapping by L. Robert Kimball & Associates, Inc., Ebensburg, Pennsylvania.  
Date of photography: May 8, 1995; field surveying of property lines not performed.

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**APPENDIX A**

**TABLE A-1: EXTRACTION WELL PUMPING VOLUMES**  
**TABLE A-2: VOC MASS REMOVAL CALCULATIONS**  
**January 2013 – December 2013**

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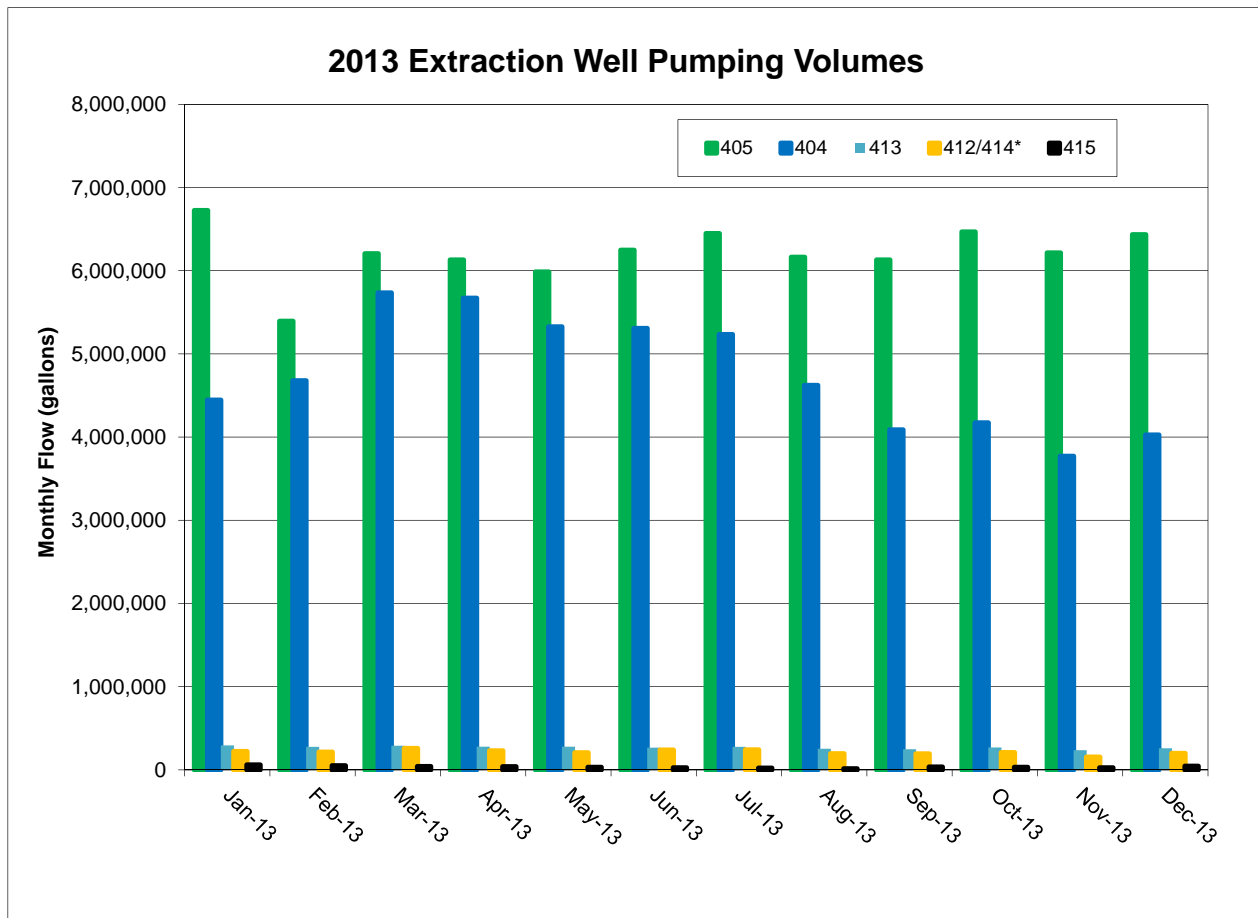
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**Table A-1: 2013 Extraction Well Pumping Volumes (gallons)  
Former IBM Facility, Owego, New York**

Month	Waste Management Area		Parking Lot 001 Area		Tank Farm Area	Site Total
	404	405	412/414*	413	415	
Jan-13	4,443,309	6,722,998	219,057	293,548	57,905	11,736,816
Feb-13	4,675,907	5,392,404	212,121	276,004	48,356	10,604,792
Mar-13	5,733,153	6,204,223	256,739	289,620	37,948	12,521,683
Apr-13	5,668,955	6,129,178	227,176	277,819	37,811	12,340,939
May-13	5,323,834	5,984,555	203,362	277,755	29,979	11,819,485
Jun-13	5,305,196	6,245,458	237,236	266,428	23,308	12,077,625
Jul-13	5,231,635	6,445,621	239,391	275,420	19,470	12,211,536
Aug-13	4,620,964	6,161,722	192,700	253,646	12,150	11,241,182
Sep-13	4,085,134	6,128,843	190,732	247,489	32,487	10,684,686
Oct-13	4,169,895	6,465,527	205,214	268,979	28,342	11,137,957
Nov-13	3,767,980	6,213,914	151,361	235,187	23,530	10,391,972
Dec-13	4,024,048	6,432,382	195,550	259,446	42,342	10,953,768
					<b>Total</b>	<b>137,722,442</b>

\* Wells 412 and 414 are not metered separately.



**Table A-2: 2013 VOC Mass Removal Calculations  
Former IBM Facility, Owego, New York**

Month	Trichloroethene	cis-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1,2-Dichloro-1,2,2-Trifluoroethane (Freon 123a)	Other VOCs	Volume Pumped through GTF* (gallons)
Jan	140.0	27.0	26.0	24.0	6.0	58.0	4.0	ND	11,811,000
Feb	120.0	38.0	32.0	36.0	7.0	48.0	5.0	ND	10,652,000
Mar	140.0	36.0	35.0	38.0	9.0	60.0	5.0	ND	12,578,000
Apr	130.0	26.0	25.0	25.0	7.0	60.0	5.0	ND	12,489,000
May	150.0	32.0	25.0	28.0	8.0	69.0	6.0	ND	12,097,300
Jun	140.0	35.0	34.0	39.0	8.0	56.0	6.0	ND	12,331,700
Jul	140.0	28.0	28.0	26.0	7.0	55.0	5.0	ND	12,612,400
Aug	150.0	39.0	37.0	43.0	11.0	63.0	6.0	ND	11,956,400
Sep	130.0	27.0	29.0	25.0	8.0	50.0	5.0	ND	11,152,500
Oct	140.0	39.0	43.0	41.0	11.0	65.0	5.0	ND	11,319,900
Nov	150.0	38.0	35.0	34.0	9.0	59.0	5.0	ND	10,608,700
Dec	130.0	29.0	27.0	21.0	8.0	52.0	4.0	ND	11,126,400
<b>Total</b>									<b>140,735,300</b>

\*The volume pumped through the GTF differs slightly from the volume pumped from the extraction wells due to metering differences.

**Total** **140,735,300**  
**gallons**

**Pounds of Chemicals Removed by Air Stripping**

Month	Trichloroethene	cis-1,2-Dichloroethene	1,1,1-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1,2-Dichloro-1,2,2-Trifluoroethane (Freon 123a)	Other VOCs	Total VOCs Removed (pounds)
Jan	13.8	2.7	2.6	2.4	0.6	5.7	0.4	--	28
Feb	10.7	3.4	2.8	3.2	0.6	4.3	0.4	--	25
Mar	14.7	3.8	3.7	4.0	0.9	6.3	0.5	--	34
Apr	13.6	2.7	2.6	2.6	0.7	6.3	0.5	--	29
May	15.2	3.2	2.5	2.8	0.8	7.0	0.6	--	32
Jun	14.4	3.6	3.5	4.0	0.8	5.8	0.6	--	33
Jul	14.7	2.9	2.9	2.7	0.7	5.8	0.5	--	30
Aug	15.0	3.9	3.7	4.3	1.1	6.3	0.6	--	35
Sep	12.1	2.5	2.7	2.3	0.7	4.7	0.5	--	26
Oct	13.2	3.7	4.1	3.9	1.0	6.1	0.5	--	33
Nov	13.3	3.4	3.1	3.0	0.8	5.2	0.4	--	29
Dec	12.1	2.7	2.5	2.0	0.7	4.8	0.4	--	25
<b>Totals</b>	<b>162.7</b>	<b>38.5</b>	<b>36.7</b>	<b>37.2</b>	<b>9.7</b>	<b>68.2</b>	<b>6.0</b>	<b>0.0</b>	<b>359</b>

**pounds**

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## APPENDIX B

**TABLE B-1: WELL SPECIFICATIONS, CORRECTIVE ACTION  
MONITORING PROGRAM**

**TABLE B-2a: HYDRAULIC EFFECTIVENESS MONITORING  
WELLS FOR GROUNDWATER ELEVATION  
MEASUREMENTS**

**TABLE B-2b: CONTAMINANT REDUCTION MONITORING  
WELLS FOR GROUNDWATER SAMPLING**

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**Table B-1: Well Specifications  
Corrective Action Monitoring Program**

Well	Northing (grid feet)	Easting (grid feet)	Current M.P. Elevation (ft amsl)	Current Ground Surface Elevation (ft amsl)	Depth to Bedrock (ft bgs)	Bedrock Elevation (ft amsl)	Baseline Depth to Bottom from M.P. (ft)	Baseline Elevation of Bottom (ft amsl)	Well Diameter (in)	Screen Length (ft)	Well Construction Material	Geologic Unit Monitored	Site Area	Up, Down, or Side Gradient
622	765344.6	918560.8	842.11	840.0	42	798.0	46.53	795.58	2	5	PVC, 10 slot	Till/Bedrock	TVD/MLA	DG
623	765292.6	918000.3	852.67	850.7	NE	NE	54.59	798.08	2	10	PVC, 10 slot	Outwash Sand&Gravel	TVD/MLA	DG
624	765299.7	918006.4	853.46	851.5	60.5	791.0	64.39	789.07	2	5	PVC, 10 slot	Till/Bedrock	TVD/MLA	DG
625	764081.1	916908.4	808.77	806.8	NE	NE	44.58	764.19	2	10	PVC, 10 slot	Outwash Sand	SBA	DG
626	764076.2	916901.0	808.60	804.5	86.5	718.0	92.41	716.19	2	5	PVC, 10 slot	Till/Bedrock	SBA	DG
627	764545.6	916922.9	812.96	811.2	NE	NE	50.91	762.05	2	10	PVC, 10 slot	Outwash Sand	SBA	DG
628	764537.3	916914.3	812.43	810.9	95.5	715.4	100.50	711.93	2	5	PVC, 10 slot	Till/Bedrock	SBA	DG
629	765410.2	916642.9	818.39	816.2	NE	NE	51.45	766.94	2	10	PVC, 10 slot	Silt, f. Sand, Gravel	WBA	SG
630	765399.8	916638.6	817.63	815.5	88	727.5	93.55	724.08	2	5	PVC, 10 slot	Till/Bedrock	WBA	SG
631	766060.3	916906.3	829.38	828.0	NE	NE	31.53	797.85	2	5	PVC, 10 slot	Outwash Sand&Gravel	WBA	UG
632	765667.6	917925.0	853.24	850.8	34	816.8	39.34	813.90	2	5	PVC, 10 slot	Till/Bedrock	WMA	DG
P01	765207.2	917610.9	810.62	808.7	NE	NE	11.23	799.39	2	5	PVC	S & G	WMA	DG
P02	765162.9	917434.9	809.61	807.8	NE	NE	10.49	799.12	2	5	PVC	S & G	WMA	DG
P04	766897.6	919096.5	914.73	913.6	19.5	894.1	20.31	894.42	2	5	PVC	Till	TFA	DG
P07	766152.6	919063.9	894.47	895.4	6.5	888.8	5.55	888.92	2	NL	S	Till*	TVD/MLA	DG
P08	766137.6	919137.3	894.70	895.3	9.5	886.3	8.73	885.97	2	NL	S	Till*	TVD/MLA	DG
P11	765943.1	919227.8	895.21	895.5	15.5	879.5	14.84	880.37	2	NL	S	Till*	TVD/MLA	DG

**Key:**

DG: Downgradient from source area	S: Steel
ft amsl: Feet above mean sea level	SBA: Southern Boundary Area
ft bgs: Feet below ground surface	SG: Side gradient to source area
Glaciolac.: Glaciolacustrine	TFA: Tank Farm Area
NBT/P001: Northwest Bedrock Trough/ Parking Lot 001 Area	TVD/MLA: Tower View Drive/Mirror Lake Area
M.P.: Measurement point	UG: Upgradient from source area
NA: Not available	WBA: Western Boundary Area
NE: Not encountered	WMA: Waste Management Area
NL: No log available	* Uncertain
NR: Not recorded	+ Casing has been significantly extended since well installation and emplacement of fill
OH: Open hole completion	

**Table B-2a: Hydraulic Effectiveness Monitoring Wells  
for Groundwater Elevation Measurements**

Well	M.P. Elev. (ft amsl)	Planar Coordinates		Site Area	List "A"	List "B"
		Northing	Easting			
101	814.01	764601.1	916596.6	SBA	X	
106	914.91	767106.1	919136.5	TFA		X
107A	961.80	767000.3	919557.6	TFA		X
110	946.88	766674.6	919542.5	TFA		X
113	914.83	767051.4	918957.9	TFA		X
114	916.13	766976.5	918889.9	TFA		X
120	846.20	765939.9	917443.6	WMA	X	
123	903.96	765871.9	919093.3	TFA		X
124	911.43	767366.9	918823.9	TFA		X
125	905.36	767096.6	918627.9	TFA		X
126	908.95	767128.9	918825.2	TFA		X
127	909.65	767204.2	918901.6	TFA		X
128	914.23	766984.2	918840.7	TFA		X
129	912.10	766776.9	919163.6	TFA		X
132	915.31	766141.1	919376.3	TFA		X
133	897.22	767281.5	918665.9	TVD/ML	X	
134	916.46	766044.5	919507.4	TFA		X
140R	889.14	767086.4	918134.6	NBT/P001		X
143	884.81	767292.3	917826.1	NBT/P001		X
146	868.04	766637.9	917813.3	NBT/P001		X
147	871.57	766361.6	917695.9	WMA	X	
148	857.87	766085.9	917652.8	WMA	X	
149	834.27	765773.6	917229.3	WMA	X	
154	861.70	766603.6	917601.3	NBT/P001		X
157	854.13	766538.0	917158.9	NBT/P001		X
158	838.28	766293.2	916902.0	WBA	X	
160	824.31	765642.6	916618.6	WBA	X	
161	824.96	765648.6	916615.3	WBA	X	
162	825.50	765798.6	916741.9	WBA	X	
163	825.40	765802.6	916749.6	WBA	X	
165	817.50	765493.3	916873.7	WBA	X	
166	813.71	765164.2	916597.5	WBA	X	
167	813.26	765175.2	916605.7	WBA	X	
178	812.22	765209.7	917421.0	WMA	X	
179	818.32	765297.4	916931.4	WMA	X	
181	894.65	766327.2	917857.1	WMA	X	
183	851.83	765912.9	917704.1	WMA	X	
185	815.54	765206.1	916776.3	WBA	X	
186	820.32	764857.7	917114.0	SBA	X	
194	862.70	766096.0	917750.2	WMA	X	
306	821.04	764912.6	918514.9	TVD/ML	X	
308	876.26	765690.7	919205.9	TVD/ML	X	
309	874.69	765632.1	918611.4	TVD/ML	X	
313	849.79	765577.1	918146.7	TVD/ML	X	
314	813.82	764592.4	916575.0	SBA	X	
316	813.46	765161.3	916608.8	WBA	X	
317	823.00	765642.2	916612.3	WBA	X	
318	814.19	764251.6	916904.6	SBA	X	
319	806.89	764348.5	916622.4	SBA	X	
321	853.72	765315.2	918902.2	TVD/ML	X	
322	806.20	764159.2	916744.3	SBA	X	
323	813.67	764450.0	916768.0	SBA	X	
324	892.67	766906.2	918216.7	NBT/P001		X
325	892.15	766916.7	918213.5	NBT/P001		X
351	805.62	764164.5	916737.6	SBA	X	
352	806.48	764346.6	916619.9	SBA	X	
353	912.87	766807.8	918783.5	TFA		X
354	912.85	766823.0	918775.7	TFA		X
355	813.42	764015.2	917050.3	SBA	X	
356	813.31	764020.7	917054.5	SBA	X	
357	863.91	766720.9	917775.4	NBT/P001		X
358	864.08	766711.3	917781.0	NBT/P001		X
361	868.42	766501.5	917786.6	NBT/P001		X
362	832.69	765146.5	918765.3	TVD/ML	X	
363	855.07	765135.4	919180.1	TVD/ML	X	
364	897.72	767066.3	917771.0	NBT/P001		X
365	898.02	767072.2	917770.3	NBT/P001		X
366	912.48	766711.7	918208.6	NBT/P001		X
367	910.15	766712.8	918032.6	NBT/P001		X
368	910.25	766710.2	918027.1	NBT/P001		X
372	904.96	765064.9	919791.2	TVD/ML	X	
373	832.19	765151.7	918758.2	TVD/ML	X	
374	821.25	764914.9	918527.1	TVD/ML	X	
375	833.00	764705.6	919469.4	TVD/ML	X	

**Table B-2a: Hydraulic Effectiveness Monitoring Wells  
for Groundwater Elevation Measurements**

Well	M.P. Elev. (ft amsl)	Planar Coordinates		Site Area	List "A"	List "B"
		Northing	Easting			
378	900.05	766993.8	917794.6	NBT/P001		X
379	899.67	767000.4	917792.4	NBT/P001		X
382	912.59	766704.2	918193.3	NBT/P001		X
383	867.39	766625.0	917810.0	NBT/P001		X
386	822.26	765601.5	917106.5	WMA	X	
387	817.59	765481.8	916866.0	WBA	X	
391	833.75	764709.2	919481.7	TVD/ML	X	
392	896.07	766805.5	917961.4	NBT/P001		X
393	892.69	766967.9	917932.7	NBT/P001		X
394	892.51	766972.3	917934.2	NBT/P001		X
395	890.07	767015.6	918162.0	NBT/P001		X
397	865.79	766554.2	917409.1	NBT/P001		X
398	865.37	766561.0	917406.4	NBT/P001		X
399	867.38	766826.6	917750.8	NBT/P001		X
412	890.34	767010.9	918152.3	NBT/P001		X
413	889.28	767086.5	918127.5	NBT/P001		X
414	893.23	766889.8	918195.1	NBT/P001		X
415	914.38	766989.0	918841.0	TFA		X
521	863.78	766813.4	917531.5	MT		X
522	864.46	766922.5	917616.3	MT		X
524	866.28	766671.0	917748.5	MT		X
529	863.93	766807.5	917532.6	MT		X
532	866.34	766678.4	917750.1	MT		X
534	862.88	766876.5	917684.3	MT		X
540	810.55	763910.4	916233.3	SBA	X	
541	812.11	753614.5	916380.7	SBA	X	
542	806.40	763435.0	916624.5	SBA	X	
543	823.64	763621.1	916951.9	SBA	X	
601	862.08	766597.3	917599.5	NBT/P001		X
602	862.15	766485.9	917557.5	NBT/P001		X
603	864.18	766585.3	917334.9	NBT/P001		X
604	885.48	767135.5	917876.0	NBT/P001		X
605	885.23	767139.6	917874.6	NBT/P001		X
606	900.10	766911.5	917826.6	NBT/P001		X
607	900.64	766901.8	917830.3	NBT/P001		X
608	861.51	766614.6	917449.8	NBT/P001		X
609	895.16	767176.0	918342.1	NBT/P001		X
610	909.10	766978.1	918572.3	NBT/P001		X
611	909.11	766982.3	918579.3	NBT/P001		X
612	903.93	766991.4	918321.7	NBT/P001		X
613	903.94	766986.7	918314.2	NBT/P001		X
614	811.80	764906.7	916538.0	WBA	X	
615	862.69	766479.4	917558.0	NBT/P001		X
616	888.18	767296.7	918241.6	NBT/P001		X
617	895.77	767312.2	918427.0	NBT/P001		X
618	909.29	767604.5	918632.7	TFA		X
619	896.45	765999.4	919160.0	TVD/ML	X	
620	887.16	765775.4	919122.9	TVD/ML	X	
621	841.97	765343.7	918569.7	TVD/ML	X	
622	842.11	765344.6	918560.8	TVD/ML	X	
623	852.67	765292.6	918000.3	TVD/ML	X	
624	853.46	765299.7	918006.4	TVD/ML	X	
625	808.77	764081.1	916908.4	SBA	X	
626	808.60	764076.2	916901.0	SBA	X	
627	812.96	764545.6	916922.9	SBA	X	
628	812.43	764537.3	916914.3	SBA	X	
629	818.39	765410.2	916642.9	WBA	X	
630	817.63	765399.8	916638.6	WBA	X	
631	829.38	766060.3	916906.3	WBA	X	
632	853.24	765667.6	917925.0	WMA	X	
P01	810.62	765207.2	917610.9	WMA	X	
P02	809.61	765162.9	917434.9	WMA	X	
P04	914.73	766897.6	919096.5	TFA		X
P07	894.47	766152.6	919063.9	TVD/ML	X	
P08	894.70	766137.6	919137.3	TVD/ML	X	
P11	895.21	765943.1	919227.8	TVD/ML	X	

Planar coordinates are relative to the New York State grid and are expressed in feet.

*Lists "A" and "B" are to be alternated as follows:*

In Year 1, List "A" wells shall be measured in the first and third quarters; List "B" wells in the second and fourth quarters. In Year 2, List "A" wells shall be measured in the second and fourth quarters; List "B" wells in the first and third quarters. Years 3, 5, 7, etc. shall be the same as Year 1 and Years 4, 6, 8, etc. shall be the same as Year 2.



**Table B-2b: Contaminant Reduction Monitoring Wells  
for Groundwater Sampling**

Well	Site Area	Site Region	Sampling Frequency	List "A"	List "B"
107A*	TFA	North	Q	X	X
110	TFA	North	S		X
124	TFA	North	S		X
125	TFA	North	S		X
127	TFA	North	S		X
128	TFA	North	A		X
129	TFA	North	S		X
132	TFA	North	A		X
134	TFA	North	S		X
353	TFA	North	A		X
354	TFA	North	A		X
618	TFA	North	S		X
P04	TFA	North	A		X
521	MT	North	S		X
522	MT	North	Q	X	X
524	MT	North	S		X
529	MT	North	Q	X	X
532	MT	North	Q	X	X
534	MT	North	Q	X	X
140R	NBT/P001	North	A		X
146	NBT/P001	North	S		X
157	NBT/P001	North	S		X
324	NBT/P001	North	S		X
325	NBT/P001	North	S		X
357	NBT/P001	North	S		X
358	NBT/P001	North	A		X
378	NBT/P001	North	S		X
383	NBT/P001	North	S		X
392	NBT/P001	North	S		X
393	NBT/P001	North	Q	X	X
394	NBT/P001	North	S		X
397	NBT/P001	North	A		X
398	NBT/P001	North	S		X
399	NBT/P001	North	Q	X	X
603	NBT/P001	North	S		X
604	NBT/P001	North	S		X
605	NBT/P001	North	A		X
606	NBT/P001	North	Q	X	X
607	NBT/P001	North	Q	X	X
608	NBT/P001	North	S		X
609	NBT/P001	North	A		X
610	NBT/P001	North	S		X
611	NBT/P001	North	S		X
612	NBT/P001	North	S		X
613	NBT/P001	North	S		X
615	NBT/P001	North	A		X
616	NBT/P001	North	S		X
617	NBT/P001	North	S		X
101	SBA	South	S	X	
186	SBA	South	S	X	
314	SBA	South	A	X	
318	SBA	South	Q	X	X
319	SBA	South	Q	X	X
322	SBA	South	Q	X	X
323	SBA	South	Q	X	X
351	SBA	South	S	X	
352	SBA	South	A	X	
355	SBA	South	A	X	
356	SBA	South	A	X	
625	SBA	South	Q	X	X
626	SBA	South	S	X	
627	SBA	South	S	X	
540	SBA	South	S	X	
541	SBA	South	S	X	

**Table B-2b: Contaminant Reduction Monitoring Wells  
for Groundwater Sampling**

Well	Site Area	Site Region	Sampling Frequency	List "A"	List "B"
542	SBA	South	S	X	
543	SBA	South	S	X	
133	TVD/MLA	South	S	X	
306	TVD/MLA	South	A	X	
308	TVD/MLA	South	S	X	
309	TVD/MLA	South	S	X	
313	TVD/MLA	South	A	X	
321	TVD/MLA	South	S	X	
362	TVD/MLA	South	A	X	
363	TVD/MLA	South	A	X	
373	TVD/MLA	South	S	X	
374	TVD/MLA	South	S	X	
619	TVD/MLA	South	A	X	
620	TVD/MLA	South	S	X	
621	TVD/MLA	South	S	X	
622	TVD/MLA	South	S	X	
P08	TVD/MLA	South	A	X	
P11	TVD/MLA	South	A	X	
158	WBA	South	A	X	
160	WBA	South	S	X	
162	WBA	South	S	X	
163	WBA	South	A	X	
165	WBA	South	S	X	
166	WBA	South	S	X	
167	WBA	South	S	X	
185	WBA	South	S	X	
316	WBA	South	S	X	
317	WBA	South	S	X	
614	WBA	South	A	X	
631	WBA	South	S	X	
120	WMA	South	S	X	
148	WMA	South	S	X	
149	WMA	South	S	X	
178	WMA	South	S	X	
179	WMA	South	S	X	
181	WMA	South	A	X	
183	WMA	South	S	X	
194	WMA	South	S	X	
403	WMA	South	S	X	
632	WMA	South	S	X	

**Key:**

- MT = Moore Tire Area (off-site)
- NBT/P001 = NW Bedrock Trough/P001 Area
- SBA = Southern Boundary Area
- TFA = Tank Farm Area
- TVD/MLA = Tower View Drive/Mirror Lake Area
- WBA = Western Boundary Area
- WMA = Waste Management Area
- A = Annual
- S = Semiannual
- Q = Quarterly
- \* Site-wide upgradient well to be sampled quarterly.

X = Analyze all samples for volatile organic compounds by SW846 Method 8021 or Method

*Lists "A" and "B" are to be alternated as follows:*

In Year 1, List "A" wells shall be sampled in the first and third quarters; List "B" wells in the second and fourth quarters. In Year 2, List "A" wells shall be sampled in the second and fourth quarters; List "B" wells in the first and third quarters. Years 3, 5, 7, etc. shall be the same as Year 1 and Years 4, 6, 8, etc. shall be the same as Year 2.

All listed monitoring wells are hydraulic effectiveness monitoring wells. Refer to Table 2a for a complete list and schedule of groundwater elevation measurements.

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**APPENDIX C**

**GROUNDWATER ELEVATION DATA  
January 1, 2013 - December 31, 2013**

**2013 WELL INSPECTION SUMMARY WITH  
DEDICATED EQUIPMENT ASSIGNMENTS**

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**Former Owego, New York Facility  
Groundwater Elevation Data**

**Northern Areas (NBT/P001, TFA)**

Well Number	TOC Elevation	04/01/2013 DTW	04/01/2013 GWE
106	914.91	2.22	912.69
107A	961.80	16.15	945.65
110	946.88	8.60	938.28
113	914.83	7.91	906.92
114	916.13	Dry	<899.48
123	903.96	4.33	899.63
124	911.43	5.51	905.92
125	905.36	8.10	897.26
126	908.95	8.45	900.50
127	909.65	4.05	905.60
128	914.23	19.10	895.13
129	912.10	2.56	909.54
132	915.31	16.46	898.85
134	916.46	20.51	895.95
140R	889.14	33.42	855.72
143	884.81	7.30	877.51
146	868.04	5.79	862.25
154	861.70	2.30	859.40
157	854.13	7.66	846.47
324	892.67	32.94	859.73
325	892.15	31.21	860.94
353	912.87	14.56	898.31
354	912.85	10.50	902.35
357	863.91	3.00	860.91
358	864.08	2.86	861.22
361	868.42	6.36	862.06
364	897.72	35.20	862.52
365	898.02	36.56	861.46
366	912.48	40.77	871.71
367	910.15	47.64	862.51
368	910.25	46.83	863.42
378	900.05	38.50	861.55
379	899.67	38.72	860.95
382	912.59	13.02	899.57
383	867.39	4.96	862.43
392	896.07	32.63	863.44
393	892.69	31.01	861.68
394	892.51	31.56	860.95
395	890.07	29.91	860.16
397	865.79	9.28	856.51
398	865.37	8.58	856.79
399	867.38	5.22	862.16
412	890.34	30.61	859.73
413	889.28	36.63	852.65
414	893.23	39.13	854.10
415	914.38	19.78	894.60
521	863.78	2.30	861.48
522	864.46	3.01	861.45
524	866.28	5.20	861.08
529	863.93	3.40	860.53
532	866.34	5.16	861.18
534	862.88	1.76	861.12
601	862.08	2.59	859.49
602	862.15	3.46	858.69
603	864.18	8.13	856.05
604	885.48	14.79	870.69
605	885.23	18.20	867.03
606	900.10	39.00	861.10
607	900.64	39.16	861.48
608	861.51	3.30	858.21
609	895.83	25.90	869.93
610	909.10	15.68	893.42
611	909.11	11.59	897.52
612	903.93	33.16	870.77
613	903.94	32.00	871.94
615	862.69	6.53	856.16
616	888.18	7.14	881.04
617	895.77	5.70	890.07
618	909.29	4.97	904.32
P04	914.73	5.52	909.21
540	810.55	14.52	796.03
541	812.11	16.39	795.72
542	806.40	10.46	795.94
543	823.64	26.71	796.93

**Southern Areas (WMA, WBA, SBA TVD/MLA)**

Well Number	TOC Elevation	01/21/2013 DTW	01/21/2013 GWE
101	814.01	16.66	797.35
120	846.20	21.35	824.85
133	897.22	26.74	870.48
147	871.57	16.68	854.89
148	857.87	19.18	838.69
149	834.27	19.70	814.57
158	838.28	10.39	827.89
160	824.31	11.49	812.82
161	824.96	11.95	813.01
162	825.50	8.85	816.65
163	825.40	9.80	815.60
165	817.50	9.02	808.48
166	813.71	25.27	788.44
167	813.26	8.44	804.82
178	812.22	8.07	804.15
179	818.32	39.42	778.90
181	894.65	30.07	864.58
183	851.83	24.45	827.38
185	815.54	30.85	784.69
186	820.32	41.04	779.28
194	862.70	28.29	834.41
306	821.04	5.68	815.36
308	876.26	14.03	862.23
309	874.69	27.65	847.04
313	849.79	32.15	817.64
314	813.82	18.65	795.17
316	813.46	24.69	788.77
317	823.00	10.07	812.93
318	814.19	17.25	796.94
319	806.89	9.71	797.18
321	853.72	24.72	829.00
322	806.20	9.28	796.92
323	813.67	16.48	797.19
351	805.62	10.12	795.50
352	806.48	10.76	795.72
355	813.42	16.80	796.62
356	813.31	15.99	797.32
362	832.69	14.16	818.53
363	855.07	32.58	822.49
372	904.96	44.15	860.81
373	832.19	12.91	819.28
374	821.25	5.34	815.91
375	833.00	11.64	821.36
386	822.26	11.05	811.21
387	817.59	8.20	809.39
391	833.75	12.46	821.29
540	810.55	14.81	795.74
541	812.11	16.75	795.36
542	806.40	10.88	795.52
543	823.64	27.28	796.36
614	811.80	18.46	793.34
619	896.45	10.10	886.35
620	887.16	17.40	869.76
621	841.97	20.75	821.22
622	842.11	20.10	822.01
623	852.67	41.07	811.60
624	853.46	41.70	811.76
625	808.77	11.52	797.25
626	808.60	13.16	795.44
627	812.96	16.08	796.88
628	812.43	21.56	790.87
629	818.39	29.37	789.02
630	817.63	28.90	788.73
631	829.38	6.90	822.48
632	853.24	33.20	820.04
P01	810.62	2.62	808.00
P02	809.61	5.43	804.18
P07	894.47	3.81	890.66
P08	894.70	5.18	889.52
P11	895.21	9.99	885.22

DRY = Water level less than bottom elevation  
 TOC = Top of casing or measuring point  
 DTW = Depth to water from top of casing (ft)  
 GWE = Groundwater elevation (ft amsl)

**Former Owego, New York Facility  
Groundwater Elevation Data**

**Northern Areas (NBT/P001, TFA)**

Well Number	TOC Elevation	10/01/2013 DTW	10/01/2013 GWE
106	914.91	4.14	910.77
107A	961.80	21.80	940.00
110	946.88	10.88	936.00
113	914.83	9.14	905.69
114	916.13	Dry	<899.48
123	903.96	7.59	896.37
124	911.43	12.59	898.84
125	905.36	10.40	894.96
126	908.95	11.37	897.58
127	909.65	9.38	900.27
128	914.23	19.14	895.09
129	912.10	3.58	908.52
132	915.31	17.44	897.87
134	916.46	20.66	895.80
140R	889.14	32.17	856.97
143	884.81	9.18	875.63
146	868.04	6.73	861.31
154	861.70	3.22	858.48
157	854.13	10.45	843.68
324	892.67	32.04	860.63
325	892.15	30.29	861.86
353	912.87	14.28	898.59
354	912.85	12.31	900.54
357	863.91	3.11	860.80
358	864.08	3.07	861.01
361	868.42	7.98	860.44
364	897.72	35.23	862.49
365	898.02	36.58	861.44
366	912.48	39.79	872.69
367	910.15	47.65	862.50
368	910.25	45.87	864.38
378	900.05	38.42	861.63
379	899.67	38.67	861.00
382	912.59	12.78	899.81
383	867.39	6.12	861.27
392	896.07	32.14	863.93
393	892.69	30.87	861.82
394	892.51	31.41	861.10
395	890.07	29.02	861.05
397	865.79	11.04	854.75
398	865.37	10.85	854.52
399	867.38	5.50	861.88
412	890.34	29.62	860.72
413	889.28	34.64	854.64
414	893.23	37.38	855.85
415	914.38	19.85	894.53
521	863.78	2.78	861.00
522	864.46	3.02	861.44
524	866.28	5.52	860.76
529	863.93	3.55	860.38
532	866.34	5.56	860.78
534	862.88	2.21	860.67
601	862.08	3.51	858.57
602	862.15	6.25	855.90
603	864.18	10.36	853.82
604	885.48	16.33	869.15
605	885.23	18.68	866.55
606	900.10	39.01	861.09
607	900.64	39.08	861.56
608	861.51	4.84	856.67
609	895.83	26.16	869.67
610	909.10	16.59	892.51
611	909.11	11.86	897.25
612	903.93	33.14	870.79
613	903.94	33.44	870.50
615	862.69	8.36	854.33
616	888.18	7.67	880.51
617	895.77	5.81	889.96
618	909.29	9.94	899.35
P04	914.73	6.31	908.42
540	810.55	17.25	793.30
541	812.11	19.33	792.78
542	806.40	13.31	793.09
543	823.64	29.07	794.57

**Southern Areas (WMA, WBA, SBA TVD/MLA)**

Well Number	TOC Elevation	07/01/2013 DTW	07/01/2013 GWE
101	814.01	14.12	799.89
120	846.20	22.60	823.60
133	897.22	25.97	871.25
147	871.57	17.65	853.92
148	857.87	19.15	838.72
149	834.27	19.61	814.66
158	838.28	11.16	827.12
160	824.31	9.99	814.32
161	824.96	10.48	814.48
162	825.50	7.83	817.67
163	825.40	8.56	816.84
165	817.50	7.20	810.30
166	813.71	24.17	789.54
167	813.26	7.73	805.53
178	812.22	8.01	804.21
179	818.32	38.35	779.97
181	894.65	29.48	865.17
183	851.83	25.92	825.91
185	815.54	29.70	785.84
186	820.32	40.87	779.45
194	862.70	28.59	834.11
306	821.04	4.97	816.07
308	876.26	16.07	860.19
309	874.69	28.09	846.60
313	849.79	33.47	816.32
314	813.82	15.15	798.67
316	813.46	23.78	789.68
317	823.00	8.58	814.42
318	814.19	14.86	799.33
319	806.89	9.49	797.40
321	853.72	24.27	829.45
322	806.20	6.85	799.35
323	813.67	14.46	799.21
351	805.62	6.12	799.50
352	806.48	6.67	799.81
355	813.42	14.57	798.85
356	813.31	13.92	799.39
362	832.69	14.53	818.16
363	855.07	33.12	821.95
372	904.96	43.93	861.03
373	832.19	13.38	818.81
374	821.25	5.26	815.99
375	833.00	12.56	820.44
386	822.26	11.14	811.12
387	817.59	5.82	811.77
391	833.75	13.34	820.41
540	810.55	10.15	800.40
541	812.11	11.61	800.50
542	806.40	5.70	800.70
543	823.64	22.74	800.90
614	811.80	15.67	796.13
619	896.45	10.09	886.36
620	887.16	15.86	871.30
621	841.97	22.31	819.66
622	842.11	21.62	820.49
623	852.67	41.42	811.25
624	853.46	42.12	811.34
625	808.77	9.41	799.36
626	808.60	10.77	797.83
627	812.96	14.68	798.28
628	812.43	19.91	792.52
629	818.39	28.52	789.87
630	817.63	28.03	789.60
631	829.38	6.61	822.77
632	853.24	34.16	819.08
P01	810.62	2.60	808.02
P02	809.61	5.50	804.11
P07	894.47	3.70	890.77
P08	894.70	4.94	889.76
P11	895.21	9.62	885.59

DRY = Water level less than bottom elevation  
 TOC = Top of casing or measuring point  
 DTW = Depth to water from top of casing (ft)  
 GWE = Groundwater elevation (ft amsl)

**2013 Well Inspection Summary with Dedicated Equipment Assignments**

Well ID	Reference DTB	2013 Measured DTB	Depth Differential	Well Tag Condition?	Reference Point Visible?	Standpipe Paint Condition?	Sanitary Seal Condition?	Dedicated Equipment
101	40.95	40.93	0.02	Good	Yes	Repaint	Good	PDB@37.9'
106	13.12	13.18	-0.06	Good	Yes	Repaint	Good	PDB@10.9'
107A	64.96	64.62	0.34	Good	Yes	Repaint	Good	PDB@~60'
110	20.11	21.13	-1.02	Good	Yes	Manhole	Good	PDB@15.9'
113	12.72	12.66	0.06	Good	Yes	Repaint	Good	None
114	14.70	13.32	1.38	Good	Yes	Repaint	Good	None
120	39.58	39.47	0.11	Good	Yes	Repaint	Good	PDB@24.0'
123	21.89	21.85	0.04	Good	Yes	Manhole	Good	None
124	25.14	25.28	-0.14	Good	Yes	Repaint	Good	PDB@23.9'
125	24.86	24.15	0.71	Good	Yes	Manhole	Good	PDB@23.6'
126	23.90	23.96	-0.06	Good	Yes	Manhole	Good	None
127	19.54	19.08	0.46	Good	Yes	Manhole	Good	PDB@18.8'
128	24.86	24.70	0.16	Good	Yes	Repaint	Good	PDB@22.2'
129	8.35	7.49	0.86	Good	Yes	Manhole	Good	PDB@5.4'
132	21.20	21.25	-0.05	Good	Yes	Repaint	Good	PDB@19.3'
133	31.50	31.45	0.05	Good	Yes	Repaint	Good	PDB@28.9'
134	42.89	42.87	0.02	Good	Yes	Repaint	Good	PDB@39.6'
140R	45.14	45.01	0.13	Good	Yes	Repaint	Good	PDB@42.6'
143	29.05	28.88	0.17	Good	Yes	Repaint	Good	None
146	25.86	25.85	0.01	Good	Yes	Repaint	Good	PDB@24.4'
147	27.28	27.25	0.03	Replaced	Yes	Repaint	Good	None
148	34.91	34.92	-0.01	Good	Yes	Repaint	Good	PDB@34.8'
149	33.57	33.10	0.47	Good	Yes	Repaint	Good	PDB@31.7'
154	25.56	25.37	0.19	Good	Yes	Repaint	Good	None
157	20.02	19.86	0.16	Good	Yes	Repaint	Good	PDB@15.5'
158	39.76	39.35	0.41	Good	Yes	Repaint	Good	PDB@35.1'
160	58.46	58.46	0.00	Good	Yes	Repaint	Good	PDB@57.2'
161	22.74	22.62	0.12	Good	Yes	Repaint	Good	None
162	50.43	50.41	0.02	Good	Yes	Repaint	Good	PDB@45.8'
163	25.49	25.29	0.20	Good	Yes	Repaint	Good	PDB@21.6'
165	44.21	43.85	0.36	Good	Yes	Repaint	Good	PDB@38.0'
166	90.56	90.45	0.11	Good	Yes	Repaint	Good	PDB@84.7'
167	25.52	25.28	0.24	Good	Yes	Repaint	Good	PDB@20.5'
178	36.38	36.29	0.09	Good	Yes	Repaint	Good	PDB@35.6'
179	71.51	71.40	0.11	Good	Yes	Repaint	Good	PDB@70.7'
181	40.60	40.62	-0.02	Good	Yes	Repaint	Good	PDB@38.0'
183	30.50	30.62	-0.12	Good	Yes	Repaint	Good	PDB@27.5'
185	94.20	94.14	0.06	Good	Yes	Repaint	Good	Ded. 2" SP
186	96.27	95.78	0.49	Good	Yes	Repaint	Good	Ded. 2" SP
194	113.37	112.50	0.87	Good	Yes	Repaint	Good	Ded. 2" SP
306	62.50	62.27	0.23	Good	Yes	Repaint	Good	Ded. 2" SP
308	29.99	29.97	0.02	Good	Yes	Repaint	Good	PDB@25.1'
309	32.17	32.09	0.08	Good	Yes	Repaint	Good	PDB@26.8'
313	39.50	39.85	-0.35	Good	Yes	Repaint	Good	PDB@36.0'
314	100.43	100.10	0.33	Good	Yes	Repaint	Good	PDB@98.2'
316	48.99	48.94	0.05	Good	Yes	Repaint	Good	PDB@44.5'
317	47.16	47.06	0.10	Good	Yes	Repaint	Good	PDB@42.4'
318	47.32	47.27	0.05	Good	Yes	Repaint	Good	PDB@43.3'
319	45.23	44.57	0.66	Good	Yes	Repaint	Good	PDB@40.6'
321	39.56	39.54	0.02	Good	Yes	Repaint	Good	PDB@35.6'
322	45.74	45.07	0.67	Good	Yes	Repaint	Good	PDB@41.5'
323	47.35	47.00	0.35	Good	Yes	Repaint	Good	PDB@42.1'
324	53.43	53.65	-0.22	Good	Yes	Repaint	Good	PDB@48.4'
325	42.61	42.51	0.10	Good	Yes	Repaint	Good	PDB@39.1'
351	90.40	90.15	0.25	Good	Yes	Repaint	Good	Ded. 2" SP
352	87.41	87.19	0.22	Good	Yes	Repaint	Good	Ded. 2" SP
353	28.57	28.43	0.14	Good	Yes	Manhole	Good	PDB@26.1'
354	17.25	17.14	0.11	Good	Yes	Manhole	Good	Bailer-3'
355	97.90	97.91	-0.01	Good	Yes	Repaint	Good	PDB@95.1'

**2013 Well Inspection Summary with Dedicated Equipment Assignments**

Well ID	Reference DTB	2013 Measured DTB	Depth Differential	Well Tag Condition?	Reference Point Visible?	Standpipe Paint Condition?	Sanitary Seal Condition?	Dedicated Equipment
356	70.32	70.10	0.22	Good	Yes	Repaint	Good	PDB@67.5'
357	34.53	34.43	0.10	Good	Yes	Repaint	Good	PDB@32.1'
358	17.64	17.09	0.55	Good	Yes	Repaint	Good	PDB@14.3'
361	35.39	35.24	0.15	Good	Yes	Repaint	Good	PDB@33.1'
362	66.64	66.49	0.15	Good	Yes	Repaint	Good	PDB@63.9'
363	45.53	45.35	0.18	Good	Yes	Repaint	Good	PDB@43.6'
364	65.27	65.11	0.16	Good	Yes	Repaint	Good	PDB@62.7'
365	45.86	45.67	0.19	Good	Yes	Repaint	Good	PDB@43.3'
366	42.99	42.83	0.16	Good	Yes	Repaint	Good	Bailer-3'
367	72.55	72.31	0.24	Good	Yes	Repaint	Good	PDB@69.8'
368	49.42	48.69	0.73	Good	Yes	Repaint	Good	Bailer-3'
372	65.82	65.38	0.44	Good	Yes	Repaint	Good	None
373	45.70	45.60	0.10	Good	Yes	Repaint	Good	PDB@40.7'
374	20.54	20.81	-0.27	Good	Yes	Repaint	Good	PDB@15.7'
375	45.58	45.60	-0.02	Good	Yes	Repaint	Good	None
378	77.22	77.16	0.06	Good	Yes	Repaint	Good	PDB@74.0'
379	51.92	52.57	-0.65	Good	Yes	Repaint	Good	PDB@49.4'
382	22.58	22.36	0.22	Good	Yes	Repaint	Good	PDB@19.7'
383	16.99	16.69	0.30	Good	Yes	Repaint	Good	PDB@14.3'
386	17.46	17.32	0.14	Good	Yes	Repaint	Good	PDB@14.9'
387	15.52	15.40	0.12	Good	Yes	Repaint	Good	PDB@12.5'
391	30.18	30.21	-0.03	Good	Yes	Repaint	Good	None
392	45.07	46.12	-1.05	Good	Yes	Repaint	Good	PDB@40.1'
393	65.19	64.91	0.28	Good	Yes	Repaint	Good	Ded. 2" SP
394	47.01	47.27	-0.26	Good	Yes	Repaint	Good	PDB@42.0'
395	65.10	64.92	0.18	Good	Yes	Repaint	Good	PDB@62.0'
397	39.69	39.86	-0.17	Good	Yes	Repaint	Good	PDB@37.2'
398	18.07	18.55	-0.48	Good	Yes	Repaint	Good	PDB@13.1'
399	16.59	16.54	0.05	Good	Yes	Repaint	Good	PDB@11.1'
404	Extraction Well - Inaccessible			Good	Yes	Repaint	NA	None
405	Extraction Well - Inaccessible			Good	Yes	Repaint	NA	None
412	Extraction Well - Inaccessible			Good	Yes	Repaint	NA	Bailer-3'
413	Extraction Well - Inaccessible			Good	Yes	Repaint	NA	Bailer-3'
414	Extraction Well - Inaccessible			Good	Yes	Repaint	NA	Bailer-3'
415	Extraction Well - Inaccessible			Good	Yes	Repaint	NA	None
521	39.55	39.50	0.05	Good	Yes	Manhole	Good	PDB@38.2'
522	34.08	33.94	0.14	Good	Yes	Repaint	Good	PDB@31.2'
524	36.17	36.09	0.08	Good	Yes	Repaint	Good	PDB@33.2'
529	13.76	13.78	-0.02	Good	Yes	Manhole	Good	PDB@11.4'
532	16.58	17.16	-0.58	Good	Yes	Repaint	Good	PDB@12.3'
534	13.34	13.17	0.17	Good	Yes	Manhole	Good	PDB@8.5'
540	51.03	50.88	0.15	Good	Yes	Repaint	None	PDB@46.3'
541	55.03	54.87	0.16	Good	Yes	Repaint	None	PDB@50.1'
542	44.64	44.50	0.14	Good	Yes	Repaint	None	PDB@39.4'
543	54.27	54.12	0.15	Good	Yes	Repaint	None	PDB@49.0'
601	15.56	15.40	0.16	Good	Yes	Repaint	Good	PDB@10.1'
602	19.54	19.31	0.23	Good	Yes	Repaint	Good	PDB@13.1'
603	17.95	17.79	0.16	Good	Yes	Repaint	Good	PDB@13.0'
604	22.14	22.00	0.14	Good	Yes	Manhole	Good	PDB@21.5'
605	46.50	46.32	0.18	Good	Yes	Manhole	Good	PDB@47.7'
606	47.40	47.37	0.03	Good	Yes	Manhole	Good	PDB@44.9'
607	59.74	59.63	0.11	Good	Yes	Manhole	Good	PDB@57.7'
608	16.77	16.58	0.19	Good	Yes	Repaint	Good	PDB@11.4'
609	51.66	52.33	-0.67	Good	Yes	Manhole	Good	PDB@49.2'
610	32.40	32.05	0.35	Good	Yes	Manhole	Good	PDB@29.9'
611	13.41	13.30	0.11	Good	Yes	Manhole	Good	Peristaltic
612	56.64	56.91	-0.27	Good	Yes	Manhole	Good	PDB@55.9'
613	41.63	41.43	0.20	Good	Yes	Manhole	Good	PDB@36.4'
614	105.42	105.00	0.42	Good	Yes	Repaint	Good	PDB@102.6'

## 2013 Well Inspection Summary with Dedicated Equipment Assignments

Well ID	Reference DTB	2013 Measured DTB	Depth Differential	Well Tag Condition?	Reference Point Visible?	Standpipe Paint Condition?	Sanitary Seal Condition?	Dedicated Equipment
615	46.07	45.94	0.13	Good	Yes	Repaint	Good	PDB@42.7'
616	31.56	31.37	0.19	Good	Yes	Repaint	Good	PDB@28.0'
617	37.34	37.14	0.20	Good	Yes	Manhole	Good	PDB@34.7'
618	28.86	28.67	0.19	Good	Yes	Repaint	Good	PDB@26.6'
619	15.07	14.90	0.17	Good	Yes	Manhole	Good	PDB@12.2'
620	17.56	17.41	0.15	Good	Yes	Repaint	Good	Peristaltic
621	37.41	37.21	0.20	Good	Yes	Repaint	Good	PDB@32.0'
622	46.53	46.39	0.14	Good	Yes	Repaint	Good	PDB@43.6'
623	54.59	54.39	0.20	Good	Yes	Repaint	Good	PDB@49.0'
624	64.39	64.18	0.21	Good	Yes	Repaint	Good	PDB@61.5'
625	44.58	44.35	0.23	Good	Yes	Repaint	Good	PDB@39.0'
626	92.41	92.17	0.24	Good	Yes	Repaint	Good	PDB@91.1'
627	50.91	50.79	0.12	Good	Yes	Repaint	Good	PDB@44.8'
628	100.50	100.57	-0.07	Good	Yes	Repaint	Good	PDB@97.0'
629	51.45	51.23	0.22	Good	Yes	Repaint	Good	PDB@45.2'
630	93.55	93.38	0.17	Good	Yes	Repaint	Good	PDB@90.1'
631	31.53	31.33	0.20	Good	Yes	Repaint	Good	PDB@27.9'
632	39.34	39.13	0.21	Good	Yes	Repaint	Good	PDB@35.9'
P1	11.23	11.12	0.11	Good	Yes	Repaint	Good	None
P2	10.49	10.29	0.20	Good	Yes	Repaint	Good	None
P4	20.31	20.36	-0.05	Good	Yes	Repaint	Good	PDB@17.6'
P7	5.55	5.16	0.39	Good	Yes	Manhole	Good	None
P8	8.73	8.68	0.05	Good	Yes	Manhole	Good	PDB@~6.7'
P11	14.84	14.60	0.24	Good	Yes	Manhole	Good	PDB@11'

**Key:**

DTB = Depth to Bottom

Ded. 2" SP = Dedicated 2-inch diameter submersible pump

Length of bailer in feet is indicated where a bailer is used.

PDB@X = Polyethylene diffusion bag sampling device set at indicated depth below top of casing.

All measurements in feet.



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**APPENDIX D**

**2013 SAMPLING PLAN**

**GROUNDWATER MONITORING PROGRAM**

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**Former Owego, New York Facility  
2013 Groundwater Monitoring Plan**

Well	Site Area	Site Region	Southern Areas (Annual)	Northern Areas (Semiannual)	Southern Areas (Semiannual)	Northern Areas (Annual)	Sampling Frequency	Program	Unit Monitored
			1st Quarter 2013	2nd Quarter 2013	3rd Quarter 2013	4th Quarter 2013			
101	SBA	South	X		X		S	GMP	Outwash Sand
106	TFA	North	X	X	X	X	Q	V	Till?
107A	TFA	North	X	X	X	X	Q	GMP	Bedrock
110	TFA	North		X		X	S	GMP	Till/Bedrock
120	WMA	South	X		X		S	GMP	Till/Bedrock
124	TFA	North		X		X	S	GMP	Till/Bedrock
125	TFA	North		X		X	S	GMP	Sand & Gravel/Bedrock
127	TFA	North		X		X	S	GMP	Sand & Gravel/Bedrock
128	TFA	North				X	A	GMP	Till/Bedrock
129	TFA	North		X		X	S	GMP	Till/Bedrock
132	TFA	North				X	A	GMP	Bedrock
133	TVD/MLA	South	X		X		S	GMP	Till/Bedrock
134	TFA	North		X		X	S	GMP	Till/Bedrock
140R	NBT/P001	North				X	A	GMP	Till/Bedrock
146	NBT/P001	North		X		X	S	GMP	Till/Bedrock
148	WMA	South	X		X		S	GMP	Till/Bedrock
149	WMA	South	X		X		S	GMP	Till/Bedrock
157	NBT/P001	North		X		X	S	GMP	Till/Bedrock
158	WBA	South	X				A	GMP	Till/Bedrock
160	WBA	South	X		X		S	GMP	Basal Till
162	WBA	South	X		X		S	GMP	Till/Bedrock
163	WBA	South	X				A	GMP	Alluvial Silt and Gravel
165	WBA	South	X		X		S	GMP	Till/Bedrock
166	WBA	South	X		X		S	GMP	Till/Bedrock
167	WBA	South	X		X		S	GMP	Silt
178	WMA	South	X		X		S	GMP	Gravel/Bedrock
179	WMA	South	X		X		S	GMP	Outwash Sand
181	WMA	South	X				A	GMP	Till/Bedrock
183	WMA	South	X		X		S	GMP	Till/Bedrock
185	WBA	South	X		X		S	GMP	Sand & Gravel/Bedrock
186	SBA	South	X		X		S	GMP	Sand & Gravel/Bedrock
194	WMA	South	X		X		S	GMP	Bedrock
306	TVD/MLA	South	X				A	GMP	Sand & Gravel/Bedrock
308	TVD/MLA	South	X		X		S	GMP	Till/Bedrock
309	TVD/MLA	South	X		X		S	GMP	Till
313	TVD/MLA	South	X				A	GMP	Till/Bedrock?
314	SBA	South	X				A	GMP	Basal Till
316	WBA	South	X		X		S	GMP	Glaciolac., vf sand, silt, clay
317	WBA	South	X		X		S	GMP	Outwash Sand & Gravel
318	SBA	South	X	X	X	X	Q	GMP	Outwash Sand & Gravel
319	SBA	South	X	X	X	X	Q	GMP	Outwash Sand
321	TVD/MLA	South	X		X		S	GMP	Sand & Gravel/Till
322	SBA	South	X	X	X	X	Q	GMP	Outwash Sand & Gravel
323	SBA	South	X	X	X	X	Q	GMP	Outwash Sand
324	NBT/P001	North		X		X	S	GMP	Till/Bedrock
325	NBT/P001	North		X		X	S	GMP	Alluvial Gravel
351	SBA	South	X		X		S	GMP	Till/Bedrock
352	SBA	South	X				A	GMP	Basal Till
353	TFA	North				X	A	GMP	Bedrock
354	TFA	North				X	A	GMP	Till
355	SBA	South	X				A	GMP	Bedrock
356	SBA	South	X				A	GMP	Outwash Sand & Gravel
357	NBT/P001	North		X		X	S	GMP	Bedrock
358	NBT/P001	North				X	A	GMP	Alluvial Sand & Gravel
361	NBT/P001	North				X	A	V	Bedrock
362	TVD/MLA	South	X				A	GMP	Bedrock
363	TVD/MLA	South	X				A	GMP	Bedrock
364	NBT/P001	North				X	A	V	Till/Bedrock
365	NBT/P001	North				X	A	V	Alluvial Sand & Gravel
366	NBT/P001	North				X	A	V	Till/Bedrock
367	NBT/P001	North		X		X	S	V	Till/Bedrock
368	NBT/P001	North		X		X	S	V	Alluvial Silt, Sand, Gravel
373	TVD/MLA	South	X		X		S	GMP	Outwash Sand & Gravel
374	TVD/MLA	South	X		X		S	GMP	Sand & Gravel
378	NBT/P001	North		X		X	S	GMP	Bedrock
379	NBT/P001	North				X	A	V	Till
382	NBT/P001	North				X	A	V	Fill
383	NBT/P001	North		X		X	S	GMP	Alluvial Silt & f. Sand
386	WMA	South	X				A	V	Alluvial Sand & Gravel

**Former Owego, New York Facility  
2013 Groundwater Monitoring Plan**

Well	Site Area	Site Region	Southern Areas (Annual)	Northern Areas (Semiannual)	Southern Areas (Semiannual)	Northern Areas (Annual)	Sampling Frequency	Program	Unit Monitored
			1st Quarter 2013	2nd Quarter 2013	3rd Quarter 2013	4th Quarter 2013			
387	WBA	South	X				A	V	Alluvial Silt, Sand, Gravel
392	NBT/P001	North		X		X	S	GMP	Alluvial Silt, Sand, Gravel
393	NBT/P001	North	X	X	X	X	Q	GMP	Till/Bedrock
394	NBT/P001	North		X		X	S	GMP	Alluvial Silt, Sand, Gravel
395	NBT/P001	North				X	A	V	Till/Bedrock
397	NBT/P001	North				X	A	GMP	Till/Bedrock
398	NBT/P001	North		X		X	S	GMP	Alluvial Silt, Sand, Gravel
399	NBT/P001	North	X	X	X	X	Q	GMP	Alluvial Silt, Sand, Gravel
404	WMA	South	X	X	X	X	Q	V	Silt, Sand & Gravel
405	WMA	South	X	X	X	X	Q	V	Sand & Gravel/Till/Bedrock
412	NBT/P001	North	X	X	X	X	Q	V	Till/Bedrock
413	NBT/P001	North	X	X	X	X	Q	V	Alluvial Sand & Gravel/Till/Bedrock
414	NBT/P001	North	X	X	X	X	Q	V	Till/Bedrock
AP Wells*	NBT/P001	North	X	X	X	X	Q	V	Not applicable
415	TFA	North	X	X	X	X	Q	V	Till/Bedrock
521	MT	North		X		X	S	GMP	Till/Bedrock
522	MT	North	X	X	X	X	Q	GMP	Till/Bedrock
524	MT	North		X		X	S	GMP	Till/Bedrock
529	MT	North	X	X	X	X	Q	GMP	Alluvial Silt, Sand, Gravel
532	MT	North	X	X	X	X	Q	GMP	Alluvial Silt, Sand, Gravel
534	MT	North	X	X	X	X	Q	GMP	Alluvial Silt, Sand, Gravel
540	SBA	South	X		X		S	GMP	Outwash Sand & Gravel
541	SBA	South	X		X		S	GMP	Outwash Sand & Gravel
542	SBA	South	X		X		S	GMP	Outwash Sand & Gravel
543	SBA	South	X		X		S	GMP	Outwash Sand & Gravel
601	NBT/P001	North		X		X	S	V	Alluvial Silt, Sand, Gravel
602	NBT/P001	North		X		X	S	V	Alluvial Silt & Sand
603	NBT/P001	North		X		X	S	GMP	Alluvial Sand & Gravel
604	NBT/P001	North		X		X	S	GMP	Alluvial Silt & Sand
605	NBT/P001	North				X	A	GMP	Till/Bedrock
606	NBT/P001	North	X	X	X	X	Q	GMP	Alluvial Silt, Sand, Gravel
607	NBT/P001	North	X	X	X	X	Q	GMP	Till/Bedrock
608	NBT/P001	North		X		X	S	GMP	Alluvial Silt, Sand, Gravel
609	NBT/P001	North				X	A	GMP	Till/Bedrock
610	NBT/P001	North		X		X	S	GMP	Till/Bedrock
611	NBT/P001	North		X		X	S	GMP	Fill/Alluvial Sand & Silt
612	NBT/P001	North		X		X	S	GMP	Till/Bedrock
613	NBT/P001	North		X		X	S	GMP	Alluvial Silt, Sand, Gravel
614	WBA	South	X				A	GMP	Till/Bedrock
615	NBT/P001	North				X	A	GMP	Bedrock
616	NBT/P001	North		X		X	S	GMP	Till/Bedrock
617	NBT/P001	North		X		X	S	GMP	Till/Bedrock
618	TFA	North		X		X	S	GMP	Till/Bedrock
619	TVD/MLA	South	X				A	GMP	Till/Bedrock
620	TVD/MLA	South	X		X		S	GMP	Alluvial Sand & Gravel/Till
621	TVD/MLA	South	X		X		S	GMP	Outwash Sand & Gravel
622	TVD/MLA	South	X		X		S	GMP	Till/Bedrock
623	TVD/MLA	South	X				A	V	Fill/Alluvial Sand & Silt
624	TVD/MLA	South	X				A	V	Till/Bedrock
625	SBA	South	X	X	X	X	Q	GMP	Outwash Sand & Gravel
626	SBA	South	X		X		S	GMP	Till/Bedrock
627	SBA	South	X		X		S	GMP	Outwash Sand & Gravel
628	SBA	South	X				A	V	Till/Bedrock
629	WBA	South	X				A	V	Outwash Silt, Sand, Gravel
630	WBA	South	X				A	V	Till/Bedrock
631	WBA	South	X		X		S	GMP	Outwash Sand & Gravel
632	WMA	South	X		X		S	GMP	Till/Bedrock
P04	TFA	North				X	A	GMP	Till
P08	TVD/MLA	South	X				A	GMP	Till?
P11	TVD/MLA	South	X				A	GMP	Till?
<b>Sample Count:</b>			<b>79</b>	<b>54</b>	<b>57</b>	<b>72</b>	<b>Total:</b>	<b>262</b>	

Key:

X	Collect sample	MT	Moore Tire Area (off-site)
Q	Quarterly frequency	NBT/P001	NW Bedrock Trough/P001 Area
S	Semiannual frequency	SBA	Southern Boundary Area (some off-site)
A	Annual frequency	TFA	Tank Farm Area
*	Combined flow from wells 412, 413, 414	TVD/MLA	Tower View Drive/Mirror Lake Area
GMP	Groundwater Monitoring Program Well	WBA	Western Boundary Area
V	Voluntary Sampling Well	WMA	Waste Management Area

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**APPENDIX E**

**CHAINS OF CUSTODY**  
**THIRD AND FOURTH QUARTERS 2013**

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IBM Chain of Custody



Lancaster Laboratories

Acct. # 6911

For Lancaster Laboratories use only  
Group # 1401632 Sample # 7116759-83

COC #016582

1 Client Information		4 Matrix		5 Analyses Requested		For Lab Use Only	
Client: IBM-Owego		Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/>		Preservation Code		SCR#	
Project Name: 3rd GW Sampling		Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>		H		Preservation Codes	
P.O.#: CAR93004.09		Oil <input type="checkbox"/>		Total # of Containers: 820015 from 11/13/13		H = HCl T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other	
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M		Composite		Date		Date	
<input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs		Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/>		Time		Time	
OU: Routine (Endicott Non-Routine only)		Grab		Date		Date	
		Date		Time		Time	
Sample Identification		Time		Date		Date	
0TB130701P		1500		7/1/13		1800	
00125130701P		1518					
00126130701P		1537					
00373130701P		1553					
00374130701P		1608					
00404130701P		1633					
00405130701P		1640					
00318130701P		1659					
00399130701P		1713					
00130701WLD		1956					
7 Turnaround Time Requested (TAT) (please circle)		Standard		Rush		Standard	
(Rush TAT is subject to Lancaster Laboratories approval and surcharges.)		Date		Date		Date	
Date results are needed: 10 Days		Time		Time		Time	
Rush results requested by (please circle) E-mail Phone		Date		Date		Date	
E-mail: Phone:		Date		Date		Date	
8 Data Package Options (please circle if required)		Date		Date		Date	
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A		Date		Date		Date	
Type III (Reduced NJ) MA MCP NY ASP B		Date		Date		Date	
Type VI (Raw Data Only) CT RCP		Date		Date		Date	
SDG Complete? Yes No		Date		Date		Date	
Site-specific QC (MS/MSD/Dup)?		Date		Date		Date	
Yes No		Date		Date		Date	
(If yes, indicate QC sample and submit triplicate volume.)		Date		Date		Date	
Temperature upon receipt 1.0 °C		Date		Date		Date	

\* NY SDEC B

IBM Chain of Custody



Lancaster Laboratories

Acct. # 6911

For Lancaster Laboratories use only  
Group # 1401632 Sample # 7116759-83

COC #016583

1 Client Information		4 Matrix		5 Analyses Requested		For Lab Use Only	
Client: IBM-Owego		Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/>		Preservation Code		SCR#	
Project Name: 3rd GW Sampling		Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>		H		Preservation Codes	
P.O.#: CAR93004.09		Oil <input type="checkbox"/>		Total # of Containers: 820015 from 11/13/13		H = HCl T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other	
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M		Composite		Date		Date	
<input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs		Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/>		Time		Time	
OU: Routine (Endicott Non-Routine only)		Grab		Date		Date	
		Date		Time		Time	
Sample Identification		Time		Date		Date	
00318130701P		1727		7/1/13		1800	
00303130701P		1740					
00126130701P		1755					
00415130701P		1829					
00130701		1833					
00413130701P		1841					
00534130701P		1859					
00399130701P		1913					
00529130701P		1929					
0052130701P		1947					
7 Turnaround Time Requested (TAT) (please circle)		Standard		Rush		Standard	
(Rush TAT is subject to Lancaster Laboratories approval and surcharges.)		Date		Date		Date	
Date results are needed: 10 Days		Time		Time		Time	
Rush results requested by (please circle) E-mail Phone		Date		Date		Date	
E-mail: Phone:		Date		Date		Date	
8 Data Package Options (please circle if required)		Date		Date		Date	
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A		Date		Date		Date	
Type III (Reduced NJ) MA MCP NY ASP B		Date		Date		Date	
Type VI (Raw Data Only) CT RCP		Date		Date		Date	
SDG Complete? Yes No		Date		Date		Date	
Site-specific QC (MS/MSD/Dup)?		Date		Date		Date	
Yes No		Date		Date		Date	
(If yes, indicate QC sample and submit triplicate volume.)		Date		Date		Date	
Temperature upon receipt 1.0 °C		Date		Date		Date	

\* NY SDEC B

IBM Chain of Custody



Lancaster Laboratories

Acct. # 6911

For Lancaster Laboratories use only  
Group # 1401632 Sample # 7116759-83

COC #016584

**Client Information**  
Client: IBM - Onwego Acct #: 6911  
Project Name: 3rd GW Sampling SOW #: 93004.30  
BM PM: K. Whalen Project State: NY  
P.O. #: CAR93004.09 Sample: J Roni's

**Matrix**  
Sediment  Ground  Surface   
Potable  NPDES  Air   
Composite  Soil  Water  Oil

**Analyses Requested**  
Preservation Code: H  
Total # of Containers: 3  
From 11/13/13

**For Lab Use Only**  
SCR#: \_\_\_\_\_  
Preservation Codes:  
H = HCl T = Thiosulfate  
N = HNO<sub>3</sub> B = NaOH  
S = H<sub>2</sub>SO<sub>4</sub> O = Other

Check One:  Routine Lab GW  Routine GTF O&M  
 Non-Routine Investigation  Non-Routine Upgrades/Installs  
OU: Routine (Endicott Non-Routine only)

Sample Identification	Collected		Grab	Composite	Soil	Water	Oil	Total # of Containers	Remarks
	Date	Time							
OEQ130702WL1D	7/2/13	6:30	X			GW		X	Egwp Blank
0010130702P		6:49							
00178130702P		7:02							
00179130702P		7:19							
00166130702P		7:33							

**Turnaround Time Requested (TAT) (please circle)**  
Standard  Rush   
Date results are needed: 10 Days  
Rush results requested by (please circle) E-mail Phone  
E-mail: \_\_\_\_\_ Phone: \_\_\_\_\_

**Data Package Options (please circle if required)**  
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A  
Type III (Reduced NJ) MA MCP NY ASP B  
Type VI (Raw Data Only) CT RCP  
SDG Complete? Yes  No

Site-specific QC (MS/MSD/Dup)? Yes  No   
(If yes, indicate QC sample and submit triplicate volume.)

Temperature upon receipt 1.0 °C

Received by: C. Ehlert Date: 7/3/13 Time: 0925

NYSDCEB

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IBM Chain of Custody



Lancaster Laboratories

Acct. # 6911

For Lancaster Laboratories use only  
Group # 1401637 Sample # 7116791-812

COC #016651

**Client Information**  
Client: IBM Onwego Acct #: 6911  
Project Name: 3rd GW Sampling SOW #: 93004.30  
BM PM: K. Whalen Project State: NY  
P.O. #: CAR93004.09 Sample: J Roni's

**Matrix**  
Sediment  Ground  Surface   
Potable  NPDES  Air   
Composite  Soil  Water  Oil

**Analyses Requested**  
Preservation Code: H  
Total # of Containers: 3  
From 11/13/13

**For Lab Use Only**  
SCR#: \_\_\_\_\_  
Preservation Codes:  
H = HCl T = Thiosulfate  
N = HNO<sub>3</sub> B = NaOH  
S = H<sub>2</sub>SO<sub>4</sub> O = Other

Check One:  Routine Lab GW  Routine GTF O&M  
 Non-Routine Investigation  Non-Routine Upgrades/Installs  
OU: Routine (Endicott Non-Routine only)

Sample Identification	Collected		Grab	Composite	Soil	Water	Oil	Total # of Containers	Remarks
	Date	Time							
OTB130702DK	7/2/13	6:40	X			GW		X	Trap Blank
00167130702P		7:17							
00316130702P		7:41							
00149130702P		8:30							
00120130702P		9:18							
00160130702P		8:06							
00317130702P		8:42							
00148130702P		9:03							
00183130702P		9:32							
00543130702P		10:02							

**Turnaround Time Requested (TAT) (please circle)**  
Standard  Rush   
Date results are needed: 10 Days  
Rush results requested by (please circle) E-mail Phone  
E-mail: \_\_\_\_\_ Phone: \_\_\_\_\_

**Data Package Options (please circle if required)**  
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A  
Type III (Reduced NJ) MA MCP NY ASP B  
Type VI (Raw Data Only) CT RCP  
SDG Complete? Yes  No

Site-specific QC (MS/MSD/Dup)? Yes  No   
(If yes, indicate QC sample and submit triplicate volume.)

Temperature upon receipt 1.9 °C

Received by: C. Ehlert Date: 7/3/13 Time: 0925

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# IBM Chain of Custody



Lancaster Laboratories

Acct. # 6911 Group # 1401637 Sample # 7116791-812  
Instructions on reverse side correspond with circled numbers.

COC #016652

1 Client Information			4 Matrix			5 Analyses Requested			For Lab Use Only		
Client: <u>IBM Oswego</u> Acct. # <u>6911</u>			Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/>			Preservation Code			SCR#		
Project Name: <u>3rd Qtr Gw Sampling</u> SSOW # <u>93004.30</u>			Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>			Total # of Containers: <u>3</u> <u>8509 15 Pails / 120a</u>			Preservation Codes		
IBM PM: <u>K. Whalen</u> Project State: <u>NY</u>			Oil <input type="checkbox"/>						H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other		
P.O. # <u>CA93004.09</u> Sampler: <u>J. Ronis</u>			Composite <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/>			Remarks			6		
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M			Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs <input type="checkbox"/>			OU: <u>Routine</u> (Endicott Non-Routine only)					
2 Sample Identification			3 Collected								
			Date	Time	Grab						
<u>00540 130702P</u>			<u>7/2/13</u>	<u>1059</u>	<u>X</u>						
<u>00541 130702P</u>				<u>1051</u>							
<u>00542 130702P</u>				<u>1107</u>							
<u>00165 130702P</u>				<u>1124</u>							
<u>00162 130702P</u>				<u>1136</u>							
<u>00631 130702P</u>				<u>1311</u>							
<u>00530 130702P</u>				<u>1308</u>							
<u>00633 130702P</u>				<u>1400</u>							
<u>00602 130702P</u>				<u>1418</u>							
<u>00609 130702P</u>				<u>1431</u>							
7 Turnaround Time Requested (TAT) (please circle)			Relinquished by: <u>[Signature]</u> Date: <u>7/2/13</u> Time: <u>1600</u>			Received by: _____ Date: _____ Time: _____			9		
Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>			Relinquished by: _____ Date: _____ Time: _____			Received by: _____ Date: _____ Time: _____					
Date results are needed: <u>10 Days</u>			Relinquished by: _____ Date: _____ Time: _____			Received by: _____ Date: _____ Time: _____					
Rush results requested by (please circle) E-mail Phone			Relinquished by: _____ Date: _____ Time: _____			Received by: <u>[Signature]</u> Date: <u>7/3/13</u> Time: <u>0925</u>					
E-mail: _____ Phone: _____			Site-specific QC (MS/MSD/Dup)?			Temperature upon receipt <u>1.9</u> °C					
8 Data Package Options (please circle if required)			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A											
Type III (Reduced NJ) MA MCP NY ASP B											
Type VI (Raw Data Only) CT CRP											
SDG Complete? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>											

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# IBM Chain of Custody



Lancaster Laboratories

Acct. # 6911 Group # 1401637 Sample # 7116791-812  
Instructions on reverse side correspond with circled numbers.

COC #016653

1 Client Information			4 Matrix			5 Analyses Requested			For Lab Use Only		
Client: <u>IBM Oswego</u> Acct. # <u>6911</u>			Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/>			Preservation Code			SCR#		
Project Name: <u>3rd Qtr Gw Sampling</u> SSOW # <u>93004.30</u>			Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>			Total # of Containers: <u>3</u> <u>8509 15 Pails / 120a</u>			Preservation Codes		
IBM PM: <u>K. Whalen</u> Project State: <u>NY</u>			Oil <input type="checkbox"/>						H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other		
P.O. # <u>CA93004.09</u> Sampler: <u>J. Ronis</u>			Composite <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/>			Remarks			6		
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M			Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs <input type="checkbox"/>			OU: <u>Routine</u> (Endicott Non-Routine only)					
2 Sample Identification			3 Collected								
			Date	Time	Grab						
<u>05001 130702P</u>			<u>7/2/13</u>	<u>1453</u>	<u>X</u>						
<u>00620 130702P</u>			<u>7/2/13</u>	<u>1506</u>	<u>X</u>						
7 Turnaround Time Requested (TAT) (please circle)			Relinquished by: <u>[Signature]</u> Date: <u>7/2/13</u> Time: <u>1800</u>			Received by: _____ Date: _____ Time: _____			9		
Standard <input checked="" type="checkbox"/> Rush <input type="checkbox"/>			Relinquished by: _____ Date: _____ Time: _____			Received by: _____ Date: _____ Time: _____					
Date results are needed: <u>10 Days</u>			Relinquished by: _____ Date: _____ Time: _____			Received by: _____ Date: _____ Time: _____					
Rush results requested by (please circle) E-mail Phone			Relinquished by: _____ Date: _____ Time: _____			Received by: <u>[Signature]</u> Date: <u>7/3/13</u> Time: <u>0925</u>					
E-mail: _____ Phone: _____			Site-specific QC (MS/MSD/Dup)?			Temperature upon receipt <u>1.9</u> °C					
8 Data Package Options (please circle if required)			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A											
Type III (Reduced NJ) MA MCP NY ASP B											
Type VI (Raw Data Only) CT CRP											
SDG Complete? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>											

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# IBM Chain of Custody



Lancaster Laboratories

Acct. # 6911 Group # 1402134 Sample # 7119160-77

COC #016654

1 Client Information			4 Matrix			5 Analyses Requested			For Lab Use Only					
Client: <u>IBM Oswego</u> Acct # <u>6911</u>			Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/>			Preservation Code			SCR#					
Project Name: <u>3rd Qtr GW Sampling</u> SSOW # <u>93004.30</u>			Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>			Total # of Containers: <u>3</u>			Preservation Codes					
IBM PM: <u>K Whalen</u> Project State: <u>NY</u>			Composite <input type="checkbox"/>						H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other					
P.O. #: <u>CAR 93004.39</u> Sampler: <u>J Ronis</u>			Oil <input type="checkbox"/>			Remarks			6					
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M			Total # of Containers											
<input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs OU: <u>Routine</u> (Endicott Non-Routine only)			Soil <input type="checkbox"/>			Date			Time					
2 Sample Identification			3 Collected			7 Turnaround Time Requested (TAT) (please circle)			9					
Date			Time			Standard			Rush					
CTB 130703 JAR 00107A 130703 P 00100B 130703 P 00308 130703 P 00133 130703 P 00309 130703 P 00601 130703 P 00603 130703 P 00301 130703 P 00613 130703 WAD			7/2/13 7/2/13 7/2/13 7/2/13 7/2/13 7/2/13 7/2/13 7/2/13 7/2/13 7/2/13			1345 85 910 718 735 755 813 820 854 706			7/5/13 900			Received by: <u>Pat 46</u> Date: <u>7/6/13</u> Time: <u>0930</u>		
Date results are needed: <u>10 Days</u> Rush results requested by (please circle) E-mail Phone E-mail: _____ Phone: _____			Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____			Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____			Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____					
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A Type III (Reduced NJ) MA MCP NY ASP B Type VI (Raw Data Only) CT RCP			Site-specific QC (MS/MSD/Dup)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			Temperature upon receipt <u>0.2</u> °C			SDG Complete? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					

# IBM Chain of Custody



Lancaster Laboratories

Acct. # 6911 Group # 1402134 Sample # 7119160-77

COC #016655

1 Client Information			4 Matrix			5 Analyses Requested			For Lab Use Only					
Client: <u>IBM Oswego</u> Acct # <u>6911</u>			Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/>			Preservation Code			SCR#					
Project Name: <u>3rd Qtr GW Sampling</u> SSOW # <u>93004.30</u>			Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>			Total # of Containers: <u>3</u>			Preservation Codes					
IBM PM: <u>K Whalen</u> Project State: <u>NY</u>			Composite <input type="checkbox"/>						H = HCl      T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other					
P.O. #: <u>CAR 93004.39</u> Sampler: <u>J Ronis</u>			Oil <input type="checkbox"/>			Remarks			6					
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M			Total # of Containers											
<input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs OU: <u>Routine</u> (Endicott Non-Routine only)			Soil <input type="checkbox"/>			Date			Time					
2 Sample Identification			3 Collected			7 Turnaround Time Requested (TAT) (please circle)			9					
Date			Time			Standard			Rush					
00412 130703 00414 130703 00351 130703 00185 130703 00186 130703 00194 130703 00313 130703 JAR 00393 130703			7/3/13 7/3/13 7/3/13 7/3/13 7/3/13 7/3/13 7/3/13			931 921 1000 1119 1050 1200 1340 1311			7/5/13 900			Received by: <u>Pat 46</u> Date: <u>7/6/13</u> Time: <u>0930</u>		
Date results are needed: <u>10 Days</u> Rush results requested by (please circle) E-mail Phone E-mail: _____ Phone: _____			Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____			Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____			Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____ Relinquished by: _____ Date: _____ Time: _____					
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A Type III (Reduced NJ) MA MCP NY ASP B Type VI (Raw Data Only) CT RCP			Site-specific QC (MS/MSD/Dup)? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			Temperature upon receipt <u>0.2</u> °C			SDG Complete? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					



# IBM Chain of Custody



Lancaster Laboratories

Acc. # 6911 For Lancaster Laboratories use only  
Group # 1424050 Sample # 7225575-604  
Instructions on reverse side correspond with circled numbers.

COC #016693

1 Client Information			4 Matrix			5 Analyses Requested			For Lab Use Only	
Client: <u>IBM-Owego</u> Acc. # <u>6911</u>			Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/>			Preservation Code			SCR#	
Project Name: <u>4th Qtr Gw Sampling</u> SSOW # <u>93004.00</u>			Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>			H			Preservation Codes	
IBM PM: <u>R. Whalen</u> Project State: <u>NY</u>			Oil <input type="checkbox"/>			Total # of Containers: <u>2</u>			H = HCl T = Thiosulfate	
P.O. # <u>CAR 93004.09</u> Sampler: <u>J Ronis</u>			Composite <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/>			S			N = HNO <sub>3</sub> B = NaOH	
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M			Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs			O			S = H <sub>2</sub> SO <sub>4</sub> O = Other	
OU: <u>Routine</u> (Endicott Non-Routine only)			Date: <u>10/13/13</u> Time: <u>8:30</u>			X			Remarks	
2 Sample Identification			3 Collected			6			7	
Date			Time			Grab			Date	
<u>10/13/13</u>			<u>8:30</u>			<u>X</u>			<u>10/13/13</u>	
<u>00318 131000P</u>			<u>8:47</u>			<u>X</u>			<u>10/13/13</u>	
<u>00359 131000P</u>			<u>9:04</u>			<u>X</u>			<u>10/13/13</u>	
<u>00131000P</u>			<u>9:15</u>			<u>X</u>			<u>10/13/13</u>	
<u>00319 131000P</u>			<u>9:23</u>			<u>X</u>			<u>10/13/13</u>	
<u>00323 131000P</u>			<u>9:46</u>			<u>X</u>			<u>10/13/13</u>	
<u>00157 131000P</u>			<u>10:11</u>			<u>X</u>			<u>10/13/13</u>	
<u>00003 131000P</u>			<u>10:21</u>			<u>X</u>			<u>10/13/13</u>	
<u>00357 131000P</u>			<u>10:33</u>			<u>X</u>			<u>10/13/13</u>	
<u>00358 131000P</u>			<u>10:41</u>			<u>X</u>			<u>10/13/13</u>	
7 Turnaround Time Requested (TAT) (please circle)			Relinquished by			Date			Time	
Standard			Date			Time			Date	
Rush			Date			Time			Time	
(Rush TAT is subject to Lancaster Laboratories approval and surcharges.)			Date			Time			Date	
Date results are needed: <u>10/13/13</u>			Date			Time			Date	
Rush results requested by (please circle) E-mail Phone			Date			Time			Date	
E-mail: Phone:			Date			Time			Date	
8 Data Package Options (please circle if required)			Site-specific QC (MS/MSD/Dup)?			Temperature upon receipt			9	
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A			Yes			0.2 °C			Date	
Type III (Reduced NJ) MA MCP NY ASP B			No						Time	
Type VI (Raw Data Only) CT RCP			(If yes, indicate QC sample and submit triplicate volume.)						Date	
SDG Complete? Yes (No)									Time	

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# IBM Chain of Custody



Lancaster Laboratories

Acc. # 6911 For Lancaster Laboratories use only  
Group # 1424050 Sample # 7225575-604  
Instructions on reverse side correspond with circled numbers.

COC #016694

1 Client Information			4 Matrix			5 Analyses Requested			For Lab Use Only	
Client: <u>IBM-Owego</u> Acc. # <u>6911</u>			Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/>			Preservation Code			SCR#	
Project Name: <u>4th Qtr Gw Sampling</u> SSOW # <u>93004.00</u>			Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>			H			Preservation Codes	
IBM PM: <u>R. Whalen</u> Project State: <u>NY</u>			Oil <input type="checkbox"/>			Total # of Containers: <u>2</u>			H = HCl T = Thiosulfate	
P.O. # <u>CAR 93004.09</u> Sampler: <u>J Ronis</u>			Composite <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/>			S			N = HNO <sub>3</sub> B = NaOH	
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M			Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs			O			S = H <sub>2</sub> SO <sub>4</sub> O = Other	
OU: <u>Routine</u> (Endicott Non-Routine only)			Date: <u>10/13/13</u> Time: <u>10:57</u>			X			Remarks	
2 Sample Identification			3 Collected			6			7	
Date			Time			Grab			Date	
<u>10/13/13</u>			<u>10:57</u>			<u>X</u>			<u>10/13/13</u>	
<u>00015 131000P</u>			<u>11:08</u>			<u>X</u>			<u>10/13/13</u>	
<u>00008 131000P</u>			<u>11:24</u>			<u>X</u>			<u>10/13/13</u>	
<u>00001 131000P</u>			<u>11:37</u>			<u>X</u>			<u>10/13/13</u>	
<u>00524 131000P</u>			<u>12:14</u>			<u>X</u>			<u>10/13/13</u>	
<u>00533 131000P</u>			<u>12:33</u>			<u>X</u>			<u>10/13/13</u>	
<u>00357 131000P</u>			<u>12:51</u>			<u>X</u>			<u>10/13/13</u>	
<u>00358 131000P</u>			<u>1:03</u>			<u>X</u>			<u>10/13/13</u>	
<u>00146 131000P</u>			<u>1:16</u>			<u>X</u>			<u>10/13/13</u>	
<u>00383 131000P</u>			<u>1:36</u>			<u>X</u>			<u>10/13/13</u>	
7 Turnaround Time Requested (TAT) (please circle)			Relinquished by			Date			Time	
Standard			Date			Time			Date	
Rush			Date			Time			Time	
(Rush TAT is subject to Lancaster Laboratories approval and surcharges.)			Date			Time			Date	
Date results are needed: <u>10/13/13</u>			Date			Time			Date	
Rush results requested by (please circle) E-mail Phone			Date			Time			Date	
E-mail: Phone:			Date			Time			Date	
8 Data Package Options (please circle if required)			Site-specific QC (MS/MSD/Dup)?			Temperature upon receipt			9	
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A			Yes			0.2 °C			Date	
Type III (Reduced NJ) MA MCP NY ASP B			No						Time	
Type VI (Raw Data Only) CT RCP			(If yes, indicate QC sample and submit triplicate volume.)						Date	
SDG Complete? Yes (No)									Time	

\* NYSDEC B

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Lancaster Laboratories

Acct. # 6911

For Lancaster Laboratories use only  
Group # 1424050 Sample # 7225575-604

COC #016695

**1 Client Information**

Client: IBM Oswego  
Project Name: HWQ GW Sampling  
IBM PM: K. Whalen  
P.O. #: CAR 93004.09

Acct #: 6911  
SSOW #: 93004.300  
Project State: NY  
Sampler: Jronis

Check One:  Routine Lab GW  Routine GTF O&M  
 Non-Routine Investigation  Non-Routine Upgrades/Installs  
OU: Routine (Endicott Non-Routine only)

**4 Matrix**

Sediment  Ground  Surface   
Potable  NPDES  Air   
Composite  Soil  Water  Oil

**5 Analyses Requested**

Preservation Code: H

**6 For Lab Use Only**

SCR#: \_\_\_\_\_  
Remarks: \_\_\_\_\_

**7 Turnaround Time Requested (TAT) (please circle)**

Standard  Rush   
Date results are needed: 10 Days  
Rush results requested by (please circle) E-mail Phone  
E-mail: \_\_\_\_\_ Phone: \_\_\_\_\_

**8 Data Package Options (please circle if required)**

Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A  
Type III (Reduced NJ) MA MCP NY ASP B  
Type VI (Raw Data Only) CT RCP  
SDG Complete? Yes  No

Site-specific QC (MS/MSD/Dup)? Yes  No   
(If yes, indicate QC sample and submit triplicate volume.)

Temperature upon receipt: 0.2 °C

**2 Sample Identification**

Sample ID	Date	Time	Grab	Composite	Soil	Water	Oil	Total # of Containers
0036131000P	10/13	1339	X			GW		X
00625131000P		1404						
00107A131000P	10/13	1448						
00110131000P		1507						
00106131000P		1514						
00159131000P		1527						
00130131000P		1539						
00134131000P		1553						
00074131000P		1606						
00618131000P		1624						

**9**

Relinquished by: [Signature] Date: 10/13 Time: 1800  
Received by: [Signature] Date: 10/13 Time: 925



Lancaster Laboratories

Acct. # 6911

For Lancaster Laboratories use only  
Group # 1424051 Sample # 7225605-34

COC #016696

**1 Client Information**

Client: IBM Oswego  
Project Name: HWQ GW Sampling  
IBM PM: K. Whalen  
P.O. #: CAR 93004.09

Acct #: 6911  
SSOW #: 93004.300  
Project State: NY  
Sampler: Jronis

Check One:  Routine Lab GW  Routine GTF O&M  
 Non-Routine Investigation  Non-Routine Upgrades/Installs  
OU: Routine (Endicott Non-Routine only)

**4 Matrix**

Sediment  Ground  Surface   
Potable  NPDES  Air   
Composite  Soil  Water  Oil

**5 Analyses Requested**

Preservation Code: H

**6 For Lab Use Only**

SCR#: \_\_\_\_\_  
Remarks: \_\_\_\_\_

**7 Turnaround Time Requested (TAT) (please circle)**

Standard  Rush   
Date results are needed: 10 Days  
Rush results requested by (please circle) E-mail Phone  
E-mail: \_\_\_\_\_ Phone: \_\_\_\_\_

**8 Data Package Options (please circle if required)**

Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A  
Type III (Reduced NJ) MA MCP NY ASP B  
Type VI (Raw Data Only) CT RCP  
SDG Complete? Yes  No

Site-specific QC (MS/MSD/Dup)? Yes  No   
(If yes, indicate QC sample and submit triplicate volume.)

Temperature upon receipt: 1.3 °C

**2 Sample Identification**

Sample ID	Date	Time	Grab	Composite	Soil	Water	Oil	Total # of Containers
00151000P	10/13	1400	X			GW		X
00128131000P		1635						
00353131000P		1655						
00354131000P		1713						
00127131000P		1736						
00124131000P		1739						
00125131000P		1753						
00393131000P		1826						
0051131000P	10/13	728						
00509131000P	10/13	737						

**9**

Relinquished by: [Signature] Date: 10/13 Time: 1800  
Received by: [Signature] Date: 10/13 Time: 925

1 Client Information			4 Matrix			5 Analyses Requested			For Lab Use Only		
Client: IBM Owego			Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/>			Preservation Code			SCR#		
Project Name: In Situ Gw Sampling			Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>			H			Preservation Codes		
IBM PM: K. Whalen			Oil <input type="checkbox"/>			Total # of Containers			H = HCl T = Thiosulfate		
P.O. # CAR 93004.09			Water <input type="checkbox"/>			30005 Plus 1034			N = HNO <sub>3</sub> B = NaOH		
Acct # 6911			Composites			Date			S = H <sub>2</sub> SO <sub>4</sub> O = Other		
SSOW # 93004.30			Soil <input type="checkbox"/>			10/13/13			6 Remarks		
Project State NY			Grab			Time					
Sample ID Ironis			X			1500					
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M			Date			Time			Received by		
<input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs			Date			Time			Date		
OU: Routine (Endicott Non-Routine only)			Date			Time			Date		
2 Sample Identification			Date			Time			Date		
Collected			Date			Time			Date		
Date			Date			Time			Date		
Time			Date			Time			Date		
Grab			Date			Time			Date		
X			Date			Time			Date		
10/13/13			Date			Time			Date		
750			Date			Time			Date		
809			Date			Time			Date		
846			Date			Time			Date		
907			Date			Time			Date		
979			Date			Time			Date		
936			Date			Time			Date		
1008			Date			Time			Date		
1015			Date			Time			Date		
1034			Date			Time			Date		
1048			Date			Time			Date		
7 Turnaround Time Requested (TAT) (please circle)			Date			Time			Date		
Standard			Date			Time			Date		
Rush			Date			Time			Date		
Date results are needed: 10 Days			Date			Time			Date		
Rush results requested by (please circle) E-mail Phone			Date			Time			Date		
E-mail: Phone:			Date			Time			Date		
8 Data Package Options (please circle if required)			Date			Time			Date		
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A			Date			Time			Date		
Type III (Reduced NJ) MA MCP NY ASP B			Date			Time			Date		
Type VI (Raw Data Only) CT RCP			Date			Time			Date		
SDG Complete? Yes No			Date			Time			Date		
No			Date			Time			Date		
Site-specific QC (MS/MSD/Dup)?			Date			Time			Date		
Yes No			Date			Time			Date		
No			Date			Time			Date		
Temperature upon receipt 1.3 °C			Date			Time			Date		

\*NYSDEC B

1 Client Information			4 Matrix			5 Analyses Requested			For Lab Use Only		
Client: IBM Owego			Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface <input type="checkbox"/>			Preservation Code			SCR#		
Project Name: In Situ Gw Sampling			Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/>			H			Preservation Codes		
IBM PM: K. Whalen			Oil <input type="checkbox"/>			Total # of Containers			H = HCl T = Thiosulfate		
P.O. # CAR 93004.09			Water <input type="checkbox"/>			30005 Plus 1034			N = HNO <sub>3</sub> B = NaOH		
Acct # 6911			Composites			Date			S = H <sub>2</sub> SO <sub>4</sub> O = Other		
SSOW # 93004.30			Soil <input type="checkbox"/>			10/13/13			6 Remarks		
Project State NY			Grab			Time					
Sample ID Ironis			X			1500					
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M			Date			Time			Received by		
<input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs			Date			Time			Date		
OU: Routine (Endicott Non-Routine only)			Date			Time			Date		
2 Sample Identification			Date			Time			Date		
Collected			Date			Time			Date		
Date			Date			Time			Date		
Time			Date			Time			Date		
Grab			Date			Time			Date		
X			Date			Time			Date		
10/13/13			Date			Time			Date		
107			Date			Time			Date		
1117			Date			Time			Date		
1131			Date			Time			Date		
1157			Date			Time			Date		
1250			Date			Time			Date		
13006			Date			Time			Date		
1336			Date			Time			Date		
1347			Date			Time			Date		
1357			Date			Time			Date		
1417			Date			Time			Date		
7 Turnaround Time Requested (TAT) (please circle)			Date			Time			Date		
Standard			Date			Time			Date		
Rush			Date			Time			Date		
Date results are needed: 10 Days			Date			Time			Date		
Rush results requested by (please circle) E-mail Phone			Date			Time			Date		
E-mail: Phone:			Date			Time			Date		
8 Data Package Options (please circle if required)			Date			Time			Date		
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A			Date			Time			Date		
Type III (Reduced NJ) MA MCP NY ASP B			Date			Time			Date		
Type VI (Raw Data Only) CT RCP			Date			Time			Date		
SDG Complete? Yes No			Date			Time			Date		
No			Date			Time			Date		
Site-specific QC (MS/MSD/Dup)?			Date			Time			Date		
Yes No			Date			Time			Date		
No			Date			Time			Date		
Temperature upon receipt 1.3 °C			Date			Time			Date		

\*NYSDEC B

# IBM Chain of Custody



Lancaster Laboratories

Acc. # 6911 Group # 1424167 Sample # 7226315-34

COC #016699

1 Client Information			4 Matrix			5 Analyses Requested			For Lab Use Only		
Client: IBM Oswego Project Name: NYHA GW Sampling IBM PM: K. Whalen P.O. #: CAR93004.09			Acc. #: 6911 SSOW #: 93004.30 Project State: NY Shipper: Jronis			Preservation Code			SCR#		
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M <input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs			Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Oil <input type="checkbox"/>			Total # of Containers: 28000 15 Plus 13/1234			Preservation Codes H = HCl T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other		
OU: Routine (Endicott Non-Routine only)			Composite			Soil			Remarks		
2 Sample Identification			3 Collected			Grab			6		
Date			Time			Grab			Remarks		
07/13/13 03:52			1431			X			Egyp Blank		
07/16/13 10:37			1446								
07/17/13 03:57			1500								
07/25/13 04:10:4P			936								
07/25/13 04:11:1D			947								
07/29/13 10:04P			804								
07/29/13 10:04P			817								
07/29/13 10:04P			832								
07/29/13 10:04P			856								
7 Turnaround Time Requested (TAT) (please circle)			Relinquished by			Date			Time		
Standard			Date			Time			Received by		
Rush			Date			Time			Received by		
Date results are needed: 10/12/13			Date			Time			Received by		
Rush results requested by (please circle) E-mail Phone			Date			Time			Received by		
E-mail: Phone:			Date			Time			Received by		
8 Data Package Options (please circle if required)			Relinquished by			Date			Time		
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A			Date			Time			Received by		
Type III (Reduced NJ) MA MCP NY ASP B			Date			Time			Received by		
Type VI (Raw Data Only) CT RCP			Date			Time			Received by		
SDG Complete? Yes No			Date			Time			Received by		
Site-specific QC (MS/MSD/Dup)?			Date			Time			Received by		
Yes No			Date			Time			Received by		
Temperature upon receipt 0.5 °C			Date			Time			Received by		

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# IBM Chain of Custody



Lancaster Laboratories

Acc. # 6911 Group # 1424167 Sample # 7226315-34

COC #016700

1 Client Information			4 Matrix			5 Analyses Requested			For Lab Use Only		
Client: IBM Oswego Project Name: NYHA GW Sampling IBM PM: K. Whalen P.O. #: CAR93004.09			Acc. #: 6911 SSOW #: 93004.30 Project State: NY Shipper: Jronis			Preservation Code			SCR#		
Check One: <input checked="" type="checkbox"/> Routine Lab GW <input type="checkbox"/> Routine GTF O&M <input type="checkbox"/> Non-Routine Investigation <input type="checkbox"/> Non-Routine Upgrades/Installs			Sediment <input type="checkbox"/> Ground <input checked="" type="checkbox"/> Surface Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Air <input type="checkbox"/> Oil <input type="checkbox"/>			Total # of Containers: 28000 15 Plus 13/1234			Preservation Codes H = HCl T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other		
OU: Routine (Endicott Non-Routine only)			Composite			Soil			Remarks		
2 Sample Identification			3 Collected			Grab			6		
Date			Time			Grab			Remarks		
07/24/13 04:10:4P			904			X					
07/26/13 04:10:4P			919								
07/26/13 04:10:4P			947								
07/27/13 04:10:4P			957								
07/28/13 04:10:4P			1012								
07/29/13 04:10:4P			1027								
07/29/13 04:10:4P			1048								
07/29/13 04:10:4P			1101								
07/29/13 04:10:4P			1133								
7 Turnaround Time Requested (TAT) (please circle)			Relinquished by			Date			Time		
Standard			Date			Time			Received by		
Rush			Date			Time			Received by		
Date results are needed:			Date			Time			Received by		
Rush results requested by (please circle) E-mail Phone			Date			Time			Received by		
E-mail: Phone:			Date			Time			Received by		
8 Data Package Options (please circle if required)			Relinquished by			Date			Time		
Type I (Validation/NJ Reg) TX TRRP-13 NY ASP A			Date			Time			Received by		
Type III (Reduced NJ) MA MCP NY ASP B			Date			Time			Received by		
Type VI (Raw Data Only) CT RCP			Date			Time			Received by		
SDG Complete? Yes No			Date			Time			Received by		
Site-specific QC (MS/MSD/Dup)?			Date			Time			Received by		
Yes No			Date			Time			Received by		
Temperature upon receipt 0.5 °C			Date			Time			Received by		

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**APPENDIX F**

**GROUNDWATER ANALYTICAL CHEMISTRY DATA  
FOR EXTRACTION AND MONITORING WELLS  
January 1, 2013 – December 31, 2013**

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		101	101	106	106	106	106
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		01/24/2013	07/02/2013	01/23/2013	04/02/2013	07/03/2013	10/02/2013
Laboratory Sample I.D.		6934298	7116780	6934287	7009912	7119162	7225599
Sample Comment Codes		P	P	P	P	P	P
Parameter	Units						
<b>Indicator Parameters</b>							
PH	SU	7.79	7.28	7.53	7.57	7.68	7.94
SPECIFIC CONDUCTANCE	umhos/cm	488	363	512	911	438	504
TEMPERATURE	C	9.4	11.3	5.8	5.8	16.9	16.6
TURBIDITY	NTU	0.87	1.98	0.84	0.97	1.26	1.46
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	1.6	0.4 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.4 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

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Sample Location		107A	107A	107A	107A	110	110
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		01/23/2013	04/02/2013	07/03/2013	10/02/2013	04/02/2013	10/02/2013
Laboratory Sample I.D.		6934288	7009914	7119161	7225597	7009915	7225598
Sample Comment Codes		P	P	P	P	P	P
Parameter	Units						
<b>Indicator Parameters</b>							
PH	SU	7.73	7.72	7.64	7.78	6.68	7.18
SPECIFIC CONDUCTANCE	umhos/cm	300	355	394	377	6514	1530
TEMPERATURE	C	8.9	10.6	13.2	12.7	10.3	17.7
TURBIDITY	NTU	0.72	0.84	2.00	2.24	0.80	1.44
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	0.2 J	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		120	120	124	124	125	125
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		01/23/2013	07/02/2013	04/02/2013	10/02/2013	04/02/2013	10/02/2013
Laboratory Sample I.D.		6934283	7116795	7009916	7225610	7009917	7225611
Sample Comment Codes		P	P	P	P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.84	7.15	6.42	6.42	7.20	6.90
SPECIFIC CONDUCTANCE	umhos/cm	1124	1061	1444	1030	16027	12750
TEMPERATURE	C	9.8	13.3	9.7	15.9	9.7	18.0
TURBIDITY	NTU	0.86	3.57	0.84	2.06	2.69	2.68
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	2.1	1.2	ND@0.5	0.8	2.9	3.7
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	3.9	1.9	ND@0.5	ND@0.5	11	26
1,1-DICHLOROETHENE	ug/L	0.4 J	0.1 J	ND@0.5	ND@0.5	1.0	1.3
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.4 J	0.7
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	1.6	3.7
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.3 J	0.2 J
TRICHLOROETHENE	ug/L	0.9	0.5	0.6	0.3 J	7.1	11
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.3 J	2.8

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		127	127	128	129	129	132
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		04/03/2013	10/02/2013	10/02/2013	04/02/2013	10/02/2013	10/02/2013
Laboratory Sample I.D.		7011573	7225609	7225606	7009911	7225600	7225601
Sample Comment Codes		P	P	P	P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.95	7.22	6.53	7.14	8.93	7.25
SPECIFIC CONDUCTANCE	umhos/cm	4143	580	5610	35402	1530	548
TEMPERATURE	C	8.7	19.5	19.3	6.3	20.7	18.0
TURBIDITY	NTU	0.99	3.01	1.69	0.86	2.05	1.59
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	50	82	290	ND@0.5	0.2 J	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	30	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	4.1 J	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	2.6	4.0	93	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	3.2	5.5	190	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	0.1 J	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.9	1.5	270	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	0.2 J	0.3 J	15	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	57	97	160	ND@0.5	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		133	133	134	134	140R	146
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		01/22/2013	07/03/2013	04/02/2013	10/02/2013	10/03/2013	04/03/2013
Laboratory Sample I.D.		6932849	7119164	7009910	7225602	7226317	7011583
Sample Comment Codes		P	P	P	P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.76	6.74	6.40	8.16	6.49	7.28
SPECIFIC CONDUCTANCE	umhos/cm	5262	6870	431	447	2300	2534
TEMPERATURE	C	11.0	14.0	15.6	18.4	13.9	7.0
TURBIDITY	NTU	0.57	2.11	1.06	1.53	1.79	0.71
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	65	140	ND@0.5	ND@0.5	110	0.1 J
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	1.2	4.6	ND@0.5	ND@0.5	15	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	89	110	0.1 J	0.1 J	410	0.4 J
1,1-DICHLOROETHENE	ug/L	14	20	ND@0.5	ND@0.5	24	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	1.2	1.7	ND@0.5	ND@0.5	5.3	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	0.3 J	0.4 J	ND@0.5	ND@0.5	0.1 J	ND@0.5
CHLOROETHANE	ug/L	0.3 J	0.3 J	ND@0.5	ND@0.5	2.0	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	0.1 J	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.2 J	0.1 J	ND@0.5	ND@0.5	8.2	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	2.1	2.7	ND@0.5	ND@0.5	4.8	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.2 J	0.2 J	ND@0.5	ND@0.5	4.4	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		146	148	148	149	149	157
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		10/02/2013	01/23/2013	07/02/2013	01/23/2013	07/02/2013	04/04/2013
Laboratory Sample I.D.		7225593	6934284	7116798	6934282	7116794	7011590
Sample Comment Codes		P	P	P	P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.93	7.07	6.61	6.97	7.37	6.71
SPECIFIC CONDUCTANCE	umhos/cm	3090	712	821	796	920	529
TEMPERATURE	C	12.7	11.1	14.6	9.8	12.6	5.6
TURBIDITY	NTU	1.64	1.37	2.06	0.66	1.47	0.74
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	0.5 J	160	150	6.3	2.9	0.3 J
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	2.8	2.4	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	1.4	0.9	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	1.3	2.2	1.6	29	15	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	18	13	8.9	3.4	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	0.2 J	0.1 J	0.2 J	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.1 J	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	0.2 J	0.1 J	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	0.8	0.6	29	14	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	3.2	2.5	24	16	0.2 J
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.3 J	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		157	158	160	160	162	162
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		10/02/2013	01/23/2013	01/22/2013	07/02/2013	01/23/2013	07/02/2013
Laboratory Sample I.D.		7225581	6932868	6932893	7116796	6932870	7116805
Sample Comment Codes		P	P	P	P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.62	7.38	7.92	7.42	7.86	7.61
SPECIFIC CONDUCTANCE	umhos/cm	1530	479	526	545	375	461
TEMPERATURE	C	12.4	9.4	8.6	12.8	11.2	13.9
TURBIDITY	NTU	2.04	0.42	0.77	2.69	0.46	2.70
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	1.6	0.1 J	47	38	7.7	27
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5	0.2 J
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	0.2 J	ND@0.5	3.3	2.5	0.7	2.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	12	9.9	2.6	6.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	23	17	5.3	9.1
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@1.0	0.2 J	ND@0.5	0.3 J
TRICHLOROETHENE	ug/L	1.1	ND@0.5	160	170	91	72
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		163	165	165	166	166	167
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		01/23/2013	01/25/2013	07/02/2013	01/22/2013	07/02/2013	01/22/2013
Laboratory Sample I.D.		6932871	6934804	7116804	6932864	7116783	6932865
Sample Comment Codes		P	P	P	P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	7.57	7.34	7.15	7.83	7.53	7.20
SPECIFIC CONDUCTANCE	umhos/cm	287	293	394	423	516	309
TEMPERATURE	C	8.7	6.0	15.5	10.3	12.8	8.6
TURBIDITY	NTU	0.45	0.50	0.83	0.49	2.33	0.36
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	21	67	0.4 J	0.1 J	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	0.2 J	0.6	0.8	0.7	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	2.2	7.6	1.6	1.8	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	8.5	20	0.3 J	0.2 J	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	1.0	1.7	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	0.1 J	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	0.2 J	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	12	29	6.5	8.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	0.2 J	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	89	270	3.3	1.5	4.6
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	0.1 J	0.2 J	0.4 J	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		167	178	178	179	179	181
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		07/02/2013	01/25/2013	07/02/2013	01/25/2013	07/02/2013	01/22/2013
Laboratory Sample I.D.		7116792	6934802	7116781	6934803	7116782	6932895
Sample Comment Codes		P	P	P	P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.67	6.60	6.60	7.22	7.12	7.07
SPECIFIC CONDUCTANCE	umhos/cm	342	1860	2430	469	478	529
TEMPERATURE	C	11.4	8.7	12.7	8.2	11.8	10.5
TURBIDITY	NTU	3.72	0.58	1.34	0.66	1.62	0.70
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	35	29	40	21	5.2
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	0.7	0.6	2.9	3.2	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	19	13	2.8	2.7	0.6
1,1-DICHLOROETHENE	ug/L	ND@0.5	4.2	3.3	7.7	6.2	0.2 J
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	0.3 J	0.2 J	0.2 J	0.2 J	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	7.1	5.8	12	9.3	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	0.3 J	0.4 J	0.1 J	0.1 J	ND@0.5
TRICHLOROETHENE	ug/L	4.3	100	86	160	63	0.8
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		183	183	185	185	186	186
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		01/23/2013	07/02/2013	01/24/2013	07/03/2013	01/24/2013	07/03/2013
Laboratory Sample I.D.		6934285	7116799	6934292	7119173	6934291	7119174
Sample Comment Codes		P	P				
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	7.02	7.05	7.75	7.28	7.62	7.42
SPECIFIC CONDUCTANCE	umhos/cm	611	760	984	1060	1292	1190
TEMPERATURE	C	9.0	12.9	10.6	12.2	10.6	12.2
TURBIDITY	NTU	0.71	2.31	1.26	2.54	1.96	13.3
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	8.3	8.2	2.3	2.7	8.0	12
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@1.0	ND@1.0	2.4	2.6	27	39
1,1,2-TRICHLOROETHANE	ug/L	ND@1.0	ND@1.0	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	1.3	1.1	0.7	0.7	4.3	6
1,1-DICHLOROETHENE	ug/L	0.6 J	0.4 J	0.2 J	0.2 J	1.1	1.4
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@1.0	ND@1.0	0.3 J	0.3 J	2.2	4.1
1,2-DICHLOROETHANE (EDC)	ug/L	ND@1.0	ND@1.0	ND@0.5	ND@0.5	ND@0.5	0.1 J
CHLOROETHANE	ug/L	ND@1.0	ND@1.0	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	1.2	1.2	0.2 J	0.2 J	0.3 J	0.5
CIS-1,2-DICHLOROETHENE	ug/L	49	51	2.6	3.1	13	14
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@1.0	ND@1.0	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@1.0	ND@1.0	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@1.0	ND@1.0	ND@0.5	ND@0.5	0.1 J	0.1 J
TRICHLOROETHENE	ug/L	160	210	30	27	120	120
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@1.0	ND@1.0	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.2 J	0.3 J	0.1 J	0.1 J	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		194	194	306	308	308	309
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		01/24/2013	07/03/2013	01/22/2013	01/22/2013	07/03/2013	01/22/2013
Laboratory Sample I.D.		6934293	7119175	6932884	6932848	7119163	6932850
Sample Comment Codes				P	P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	7.58	7.45	7.46	8.56	6.56	6.11
SPECIFIC CONDUCTANCE	umhos/cm	860	990	1022	2018	2470	3560
TEMPERATURE	C	11.5	11.9	8.0	10.1	13.3	9.3
TURBIDITY	NTU	788	103	1.14	0.80	1.19	0.79
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	5.7	3.4	ND@0.5	96	60	1.9
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.3 J	ND@0.5	ND@0.5	1.5	1.3	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5
1,1-DICHLOROETHANE	ug/L	22	23	ND@0.5	53	41	ND@0.5
1,1-DICHLOROETHENE	ug/L	5.3	4.8	ND@0.5	7.8	5.1	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.6 J	0.5 J	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.1 J	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	0.5 J	ND@1.0	ND@1.0	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	0.2 J	ND@1.0	ND@1.0	ND@0.5
TRICHLOROETHENE	ug/L	0.2 J	ND@0.5	0.6	0.4 J	0.4 J	7.6
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@1.0	ND@1.0	ND@0.5
VINYL CHLORIDE	ug/L	0.1 J	0.1 J	ND@0.5	ND@1.0	ND@1.0	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		309	313	314	316	316	317
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		07/03/2013	01/22/2013	01/24/2013	01/22/2013	07/02/2013	01/22/2013
Laboratory Sample I.D.		7119165	6932851	6934299	6932863	7116793	6932894
Sample Comment Codes		P	P	P	P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.15	7.07	7.49	8.16	7.89	7.69
SPECIFIC CONDUCTANCE	umhos/cm	4850	1053	471	383	437	391
TEMPERATURE	C	13.1	9.7	8.4	10.3	12.0	9.7
TURBIDITY	NTU	4.08	0.83	0.87	0.61	0.77	0.71
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	3.1	0.4 J	0.3 J	ND@0.5	ND@0.5	18
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	2.6	0.2 J	ND@0.5	ND@0.5	1.1
1,1-DICHLOROETHENE	ug/L	ND@0.5	0.6	0.2 J	ND@0.5	ND@0.5	5.4
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	0.6	ND@0.5	ND@0.5	9.1
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J
TRICHLOROETHENE	ug/L	11	1.1	ND@0.5	ND@0.5	ND@0.5	71
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	317	318	318	318	318	319	
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	
Sample Date	07/02/2013	01/24/2013	04/04/2013	07/01/2013	10/02/2013	01/24/2013	
Laboratory Sample I.D.	7116797	6934300	7011591	7116766	7225576	6934296	
Sample Comment Codes	P	P	P	P	P	P	
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	7.13	8.06	7.60	7.95	6.88	8.35
SPECIFIC CONDUCTANCE	umhos/cm	414	322	303	336	424	364
TEMPERATURE	C	11.7	10.3	8.9	12.4	9.8	11.3
TURBIDITY	NTU	0.77	1.11	0.83	1.48	2.13	0.69
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	20	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	2.4	3.8	3.5	3.7	0.3 J
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	1.2	3.2	3.9	3.5	3.2	1.3
1,1-DICHLOROETHENE	ug/L	4.4	0.8	0.7	0.8	0.7	0.3 J
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	8.9	13	11	9.4	1.7
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	7.5	56	52	69	63	7.7
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	70	3.3	2.4	1.8	1.4	1.8
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	0.3 J	0.3 J	0.3 J	0.2 J	0.4 J

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	319	319	319	321	321	322	
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	
Sample Date	04/04/2013	07/01/2013	10/02/2013	01/22/2013	07/03/2013	01/24/2013	
Laboratory Sample I.D.	7011593	7116769	7225579	6932896	7119168	6934295	
Sample Comment Codes	P	P	P	P	P	P	
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.67	7.59	7.03	6.12	6.18	7.89
SPECIFIC CONDUCTANCE	umhos/cm	384	439	529	1231	1430	345
TEMPERATURE	C	9.8	11.4	9.9	11.5	12.4	9.4
TURBIDITY	NTU	1.07	1.61	1.88	0.87	1.44	0.66
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	2.1	2.4	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.5	0.8	1.0	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	1.9	1.4	1.3	1.2	1.1	0.3 J
1,1-DICHLOROETHENE	ug/L	0.3 J	0.3 J	0.3 J	0.1 J	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	2.5	2.1	1.5	ND@0.5	ND@0.5	0.9
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	9.1	7.8	7.4	ND@0.5	ND@0.5	0.5 J
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	1.9	3.1	3.8	0.4 J	ND@0.5	0.2 J
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.7	0.2 J	0.3 J	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	322	322	322	323	323	323
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	04/04/2013	07/01/2013	10/02/2013	01/24/2013	04/04/2013	07/01/2013
Laboratory Sample I.D.	7011592	7116767	7225577	6934302	7011595	7116770
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units	322	322	322	323	323	323
<b>Indicator Parameters</b>							
PH	SU	7.69	7.64	7.23	6.80	5.36	5.63
SPECIFIC CONDUCTANCE	umhos/cm	399	466	474	228	272	282
TEMPERATURE	C	9.2	11.8	10.1	8.8	10.2	11.3
TURBIDITY	NTU	1.02	0.84	1.97	0.83	0.88	9.77
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.5 J	0.4 J	0.4 J
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	0.2 J	0.5 J	0.8	0.4 J	2.4
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.1 J	ND@0.5	0.5 J
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	0.6	1.4	0.8	0.9	0.6
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	0.3 J	0.9	0.9	0.4 J	2.6
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	5.9	4.4	22
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	0.3 J	0.6	0.7	0.2 J

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**Groundwater Analytical Chemistry Data**

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January 1, 2013 - December 31, 2013

Sample Location	323	324	324	325	325	351
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/02/2013	04/03/2013	10/04/2013	04/03/2013	10/04/2013	01/24/2013
Laboratory Sample I.D.	7225580	7011577	7226321	7011578	7226322	6934289
Sample Comment Codes	P	P	P	P	P	

Parameter	Units	323	324	324	325	325	351
<b>Indicator Parameters</b>							
PH	SU	5.93	5.82	5.97	5.28	5.34	7.68
SPECIFIC CONDUCTANCE	umhos/cm	266	5370	6350	6382	6920	439
TEMPERATURE	C	9.7	11.7	14.1	12.0	13.4	9.9
TURBIDITY	NTU	1.77	1.08	1.81	0.84	1.76	1000
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	480	240	160	120	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	1.1	38	7.8	5.1	5.1	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	1.3 J	1.3 J	1.1 J	0.9 J	ND@0.5
1,1-DICHLOROETHANE	ug/L	5.3	760	81	79	56	ND@0.5
1,1-DICHLOROETHENE	ug/L	1.1	120	100	76	61	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	1.2	14	ND@2.5	1.2 J	0.9 J	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	0.8 J	0.7 J	0.7 J	0.6 J	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	1.5 J	ND@2.5	1.0 J	0.4 J	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	0.6 J	0.6 J	ND@2.5	0.4 J	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	22	51	47	44	38	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@2.5	ND@2.5	ND@2.5	ND@1.0	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	1.5 J	1.2 J	2.8	2.2	ND@0.5
TETRACHLOROETHENE	ug/L	0.1 J	1.8 J	1.7 J	6.5	5.8	ND@0.5
TRICHLOROETHENE	ug/L	60	610	550	400	310	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@2.5	ND@2.5	ND@2.5	ND@1.0	ND@0.5
VINYL CHLORIDE	ug/L	0.2 J	4.5	2.2 J	3.6	2.6	0.1 J

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		351	352	353	354	355	356
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		07/03/2013	01/24/2013	10/02/2013	10/02/2013	01/22/2013	01/22/2013
Laboratory Sample I.D.		7119172	6934290	7225607	7225608	6932879	6932880
Sample Comment Codes				P		P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	7.50	8.15	7.67	7.29	8.06	7.60
SPECIFIC CONDUCTANCE	umhos/cm	537	388	309	110	513	802
TEMPERATURE	C	11.3	9.6	19.3	20.8	11.0	10.3
TURBIDITY	NTU	1000	88.4	1.64	381	0.86	0.59
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	1400	25	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@25	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@25	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	680	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	600	2.3	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@25	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@25	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@25	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@25	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	59	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@25	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@25	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@25	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	1300	4.0	0.1 J	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@25	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.1 J	ND@0.5	ND@25	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		357	357	358	361	362	363
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		04/03/2013	10/02/2013	10/02/2013	10/02/2013	01/22/2013	01/22/2013
Laboratory Sample I.D.		7011582	7225591	7225592	7225595	6932886	6932881
Sample Comment Codes		P	P	P	P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	7.06	7.18	6.97	6.50	7.21	6.40
SPECIFIC CONDUCTANCE	umhos/cm	1948	2150	3430	2380	1080	4292
TEMPERATURE	C	9.8	12.0	13.6	12.0	10.2	10.3
TURBIDITY	NTU	0.74	1.45	1.63	1.67	0.76	0.88
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	9.3	0.5 J	ND@0.5	1.0
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	0.3 J	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	1.5	1.1	14	1.7	ND@0.5	0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	2.7	0.2 J	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	0.9	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	0.4 J	0.1 J	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	3.3	0.3 J	ND@0.5	0.2 J
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

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Sample Location		364	365	366	367	367	368
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		10/03/2013	10/03/2013	10/03/2013	04/03/2013	10/03/2013	04/03/2013
Laboratory Sample I.D.		7225621	7225622	7225629	7009932	7225627	7009933
Sample Comment Codes		P	P		P	P	
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.20	5.98	6.23	6.10	6.11	6.36
SPECIFIC CONDUCTANCE	umhos/cm	2040	2210	1760	2088	1910	3057
TEMPERATURE	C	12.3	12.6	13.5	12.2	13.0	12.9
TURBIDITY	NTU	2.07	1.73	230	1.12	1.91	19.6
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	29	91	73	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	0.5 J	3.9	3.1	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.1 J	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	12	11	9.1	24
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	7.4	23	18	1.2
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	1.2	1.4	1.0	1.0
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	0.1 J	0.1 J	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.1 J	ND@0.5	2.1
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	0.4 J	0.6	0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	8.0	3.9	3.3	11
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	0.7	23	8.3	7.4	1.4
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.8	0.7	5.8

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

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Sample Location		368	373	373	374	374	378
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		10/03/2013	01/22/2013	07/01/2013	01/22/2013	07/01/2013	04/02/2013
Laboratory Sample I.D.		7225628	6932885	7116762	6932883	7116763	7009929
Sample Comment Codes			P	P	P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.30	6.35	6.02	7.45	7.32	6.45
SPECIFIC CONDUCTANCE	umhos/cm	3190	965	1160	535	670	2166
TEMPERATURE	C	12.9	9.7	15.9	8.2	14.8	11.6
TURBIDITY	NTU	127	1.74	1.55	0.76	1.77	2.54
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	4.4	3.6	ND@0.5	ND@0.5	200
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	17
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@2.5
1,1-DICHLOROETHANE	ug/L	13	0.9	0.7	ND@0.5	ND@0.5	350
1,1-DICHLOROETHENE	ug/L	0.2 J	0.1 J	ND@0.5	ND@0.5	ND@0.5	17
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.4 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	21
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@2.5
CHLOROETHANE	ug/L	0.9	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.9 J
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@2.5
CIS-1,2-DICHLOROETHENE	ug/L	2.2	ND@0.5	ND@0.5	ND@0.5	ND@0.5	21
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@2.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@2.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@2.5
TRICHLOROETHENE	ug/L	0.4 J	0.2 J	ND@0.5	ND@0.5	ND@0.5	23
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@2.5
VINYL CHLORIDE	ug/L	1.0	ND@0.5	ND@0.5	ND@0.5	ND@0.5	15

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	378	379	382	383	383	386
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/03/2013	10/03/2013	10/03/2013	04/03/2013	10/02/2013	01/25/2013
Laboratory Sample I.D.	7225623	7225624	7225630	7011584	7225594	6934806
Sample Comment Codes	P	P	P	P	P	P
<b>Parameter</b>	<b>Units</b>					
<b>Indicator Parameters</b>						
PH	SU	6.52	6.57	6.62	6.92	6.86
SPECIFIC CONDUCTANCE	umhos/cm	1840	1990	1400	2552	2730
TEMPERATURE	C	12.0	11.9	15.2	5.4	14.2
TURBIDITY	NTU	1.70	1.65	1.87	0.87	1.88
<b>Volatile Organics</b>						
1,1,1-TRICHLOROETHANE	ug/L	21	1.3	0.1 J	2.3	1.6
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	1.4	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	86	5.1	ND@0.5	0.6	0.6
1,1-DICHLOROETHENE	ug/L	1.0	0.4 J	ND@0.5	0.3 J	0.2 J
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	4.1	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	0.5 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	5.1	0.5 J	ND@0.5	0.1 J	0.1 J
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	2.4	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	0.2 J	0.1 J	ND@0.5	3.0	3.2
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	9.1	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	387	392	392	393	393	393
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	01/25/2013	04/02/2013	10/04/2013	01/24/2013	04/02/2013	07/03/2013
Laboratory Sample I.D.	6934805	7009928	7226323	6934294	7009926	7119177
Sample Comment Codes	P	P	P			
<b>Parameter</b>	<b>Units</b>					
<b>Indicator Parameters</b>						
PH	SU	7.22	6.72	6.37	7.24	6.74
SPECIFIC CONDUCTANCE	umhos/cm	256	5840	3350	2323	2603
TEMPERATURE	C	2.9	11.1	13.4	12.5	11.7
TURBIDITY	NTU	0.40	6.31	2.21	402	89.7
<b>Volatile Organics</b>						
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	0.7	1.2	840	1000
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	100	130
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@5.0	ND@5.0
1,1-DICHLOROETHANE	ug/L	ND@0.5	0.9	0.9	1100	1300
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	100	120
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	17	26
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@5.0	ND@5.0
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	1.4 J	1.3 J
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@5.0	ND@5.0
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	120	140
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@5.0	ND@5.0
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@5.0	ND@5.0
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@5.0	ND@5.0
TRICHLOROETHENE	ug/L	ND@0.5	0.9	1.3	150	200
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@5.0	ND@5.0
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	15	18

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	393	394	394	395	397	398	
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	
Sample Date	10/02/2013	04/02/2013	10/04/2013	10/04/2013	10/02/2013	04/04/2013	
Laboratory Sample I.D.	7225612	7009927	7226324	7226319	7225583	7011587	
Sample Comment Codes		P	P	P	P	P	
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	7.55	6.39	6.51	7.06	7.58	6.67
SPECIFIC CONDUCTANCE	umhos/cm	3210	3414	3400	2490	651	901
TEMPERATURE	C	15.1	12.6	13.9	14.5	10.2	5.7
TURBIDITY	NTU	75.4	1.04	1.77	1.73	1.41	0.70
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	730	ND@0.5	ND@0.5	970	ND@0.5	7.1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	87	ND@0.5	ND@0.5	120	ND@0.5	0.3 J
1,1,2-TRICHLOROETHANE	ug/L	ND@5.0	ND@0.5	ND@0.5	ND@2.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	910	ND@0.5	ND@0.5	1100	ND@0.5	8.3
1,1-DICHLOROETHENE	ug/L	79	ND@0.5	ND@0.5	99	ND@0.5	3.1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	16	ND@0.5	ND@0.5	19	ND@0.5	0.6
1,2-DICHLOROETHANE (EDC)	ug/L	ND@5.0	ND@0.5	ND@0.5	ND@2.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@5.0	ND@0.5	ND@0.5	1.1 J	ND@0.5	0.2 J
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@5.0	ND@0.5	ND@0.5	ND@2.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	100	ND@0.5	ND@0.5	120	ND@0.5	0.6
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@5.0	ND@0.5	ND@0.5	ND@2.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@5.0	ND@0.5	ND@0.5	ND@2.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@5.0	ND@0.5	ND@0.5	ND@2.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	140	ND@0.5	ND@0.5	210	ND@0.5	3.8
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@5.0	ND@0.5	ND@0.5	ND@2.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	13	ND@0.5	ND@0.5	14	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	398	399	399	399	399	404	
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW EXTR WELL	
Sample Date	10/02/2013	01/22/2013	04/03/2013	07/01/2013	10/03/2013	01/22/2013	
Laboratory Sample I.D.	7225584	6932888	7011574	7116776	7225617	6932875	
Sample Comment Codes	P	P	P	P	P		
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.46	7.16	7.10	6.93	7.03	7.44
SPECIFIC CONDUCTANCE	umhos/cm	1730	1408	1982	2590	2490	1042
TEMPERATURE	C	12.5	5.8	6.6	15.6	15.8	10.1
TURBIDITY	NTU	2.56	0.57	1.09	0.71	1.70	1.03
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	12	ND@0.5	ND@0.5	ND@0.5	ND@0.5	6.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.4 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	32
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	9.8	ND@0.5	ND@0.5	ND@0.5	ND@0.5	4.7
1,1-DICHLOROETHENE	ug/L	5.1	ND@0.5	ND@0.5	ND@0.5	ND@0.5	1.3
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.7	ND@0.5	ND@0.5	ND@0.5	ND@0.5	6.4
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.9
CIS-1,2-DICHLOROETHENE	ug/L	1.6	ND@0.5	ND@0.5	0.2 J	0.2 J	21
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J
TRICHLOROETHENE	ug/L	12	ND@0.5	0.1 J	0.2 J	ND@0.5	120
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.4 J	ND@0.5	ND@0.5	0.1 J	ND@0.5	0.2 J

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	404	404	404	405	405	405
Sample Description	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL
Sample Date	04/04/2013	07/01/2013	10/04/2013	01/22/2013	04/04/2013	07/01/2013
Laboratory Sample I.D.	7011603	7116764	7226333	6932876	7011604	7116765
Sample Comment Codes						

Parameter	Units	404	404	404	405	405	405
<b>Indicator Parameters</b>							
PH	SU	7.26	7.26	6.83	7.47	7.47	7.30
SPECIFIC CONDUCTANCE	umhos/cm	1154	1154	1130	301	756	730
TEMPERATURE	C	10.1	10.1	12.0	9.7	8.2	11.8
TURBIDITY	NTU	1.41	1.41	8.36	0.88	2.39	4.40
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	8.9	6.7	6.4	19	17	17
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	39	49	33	71	42	54
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	5.6	4.7	4.2	4.8	4.8	4.1
1,1-DICHLOROETHENE	ug/L	1.3	1.3	1.1	4.6	3.0	4.1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	8.2	6.7	5.5	3.0	2.9	2.8
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	0.9	0.6	0.5 J	0.2 J	0.2 J	0.2 J
CIS-1,2-DICHLOROETHENE	ug/L	21	25	21	20	19	18
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	0.2 J	0.2 J	0.2 J	0.4 J	0.4 J	0.4 J
TRICHLOROETHENE	ug/L	140	140	120	95	81	86
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.2 J	0.3 J	0.2 J	0.1 J	0.1 J	0.1 J

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	405	412	412	412	412	412,413,414
Sample Description	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	COMB EXTR
Sample Date	10/04/2013	01/25/2013	04/04/2013	07/03/2013	10/04/2013	01/22/2013
Laboratory Sample I.D.	7226334	6934812	7011599	7119170	7226331	6932873
Sample Comment Codes						

Parameter	Units	405	412	412	412	412	412,413,414
<b>Indicator Parameters</b>							
PH	SU	6.85	7.28	7.21	7.05	7.13	6.62
SPECIFIC CONDUCTANCE	umhos/cm	850	1900	2104	2330	2210	2040
TEMPERATURE	C	12.5	12.0	12.0	15.7	14.1	12.0
TURBIDITY	NTU	4.60	65.2	42.6	24.2	21.2	0.91
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	20	670	430	630	240	200
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	70	70	38	70	24	22
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@5.0	ND@5.0	ND@5.0	ND@1.0	0.2 J
1,1-DICHLOROETHANE	ug/L	6.3	790	440	590	270	330
1,1-DICHLOROETHENE	ug/L	5.2	74	39	58	29	29
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	3.5	15	8.0	9.6	3.8	6.2
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@5.0	ND@5.0	ND@5.0	ND@1.0	0.2 J
CHLOROETHANE	ug/L	ND@0.5	1.7 J	ND@5.0	ND@5.0	0.2 J	0.6
CHLOROFORM (TRICHLOROMETHANE)	ug/L	0.3 J	1.3 J	ND@5.0	ND@5.0	0.2 J	0.2 J
CIS-1,2-DICHLOROETHENE	ug/L	19	88	45	53	35	33
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@5.0	ND@5.0	ND@5.0	ND@1.0	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@5.0	ND@5.0	ND@5.0	ND@1.0	ND@0.5
TETRACHLOROETHENE	ug/L	0.4 J	ND@5.0	ND@5.0	ND@5.0	ND@1.0	0.5 J
TRICHLOROETHENE	ug/L	99	130	92	120	65	97
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@5.0	ND@5.0	ND@5.0	ND@1.0	ND@0.5
VINYL CHLORIDE	ug/L	0.1 J	7.4	2.9 J	5.1	1.8	2.3

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	412,413,414	412,413,414	412,413,414	413	413	413
Sample Description	COMB EXTR	COMB EXTR	COMB EXTR	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL
Sample Date	04/04/2013	07/01/2013	10/04/2013	01/22/2013	04/04/2013	07/01/2013
Laboratory Sample I.D.	7011596	7116773	7226328	6932874	7011597	7116774
Sample Comment Codes						

Parameter	Units						
<b>Indicator Parameters</b>							
PH	SU	6.40	6.42	7.48	6.63	6.24	6.43
SPECIFIC CONDUCTANCE	umhos/cm	2587	2850	0.46	2441	2574	2830
TEMPERATURE	C	12.1	14.2	19.4	10.6	12.1	13.6
TURBIDITY	NTU	1.46	2.07	2.80	1.11	1.25	2.26
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	120	120	100	140	110	100
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	11	15	13	22	13	15
1,1,2-TRICHLOROETHANE	ug/L	0.1 J	ND@0.5	0.1 J	0.2 J	0.1 J	0.1 J
1,1-DICHLOROETHANE	ug/L	160	160	140	160	150	150
1,1-DICHLOROETHENE	ug/L	20	22	21	21	23	24
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	2.9	3.4	2.6	3.8	3.1	3
1,2-DICHLOROETHANE (EDC)	ug/L	0.1 J	0.1 J	0.2 J	0.1 J	0.1 J	0.1 J
CHLOROETHANE	ug/L	0.6	0.7	0.4 J	0.5 J	0.5	0.6
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	22	23	22	21	23	22
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	0.1 J	0.1 J	0.1 J	0.2 J	0.2 J	0.1 J
TRICHLOROETHENE	ug/L	61	65	54	54	58	58
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	2.0	2.8	1.8	2.6	1.9	2.4

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	413	414	414	414	414	415
Sample Description	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL
Sample Date	10/04/2013	01/25/2013	04/04/2013	07/03/2013	10/04/2013	01/25/2013
Laboratory Sample I.D.	7226327	6934813	7011600	7119171	7226332	6934814
Sample Comment Codes						

Parameter	Units						
<b>Indicator Parameters</b>							
PH	SU	6.51	6.50	6.54	6.44	6.34	6.66
SPECIFIC CONDUCTANCE	umhos/cm	2840	3586	3990	4180	3390	4284
TEMPERATURE	C	14.5	11.4	11.9	14.3	12.9	15.1
TURBIDITY	NTU	3.58	4.56	0.84	92.8	158	1.85
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	98	560	820	810	750	2200
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	9.7	78	110	93	110	190
1,1,2-TRICHLOROETHANE	ug/L	0.1 J	ND@5.0	0.7 J	ND@25	0.7 J	13 J
1,1-DICHLOROETHANE	ug/L	140	850	1400	1400	1200	1600
1,1-DICHLOROETHENE	ug/L	20	100	89	110	85	1500
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	2.4	15	28	29	24	ND@50
1,2-DICHLOROETHANE (EDC)	ug/L	0.2 J	ND@5.0	0.6 J	ND@25	ND@2.5	ND@50
CHLOROETHANE	ug/L	0.4 J	1.3 J	1.1 J	ND@25	0.8 J	ND@50
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@5.0	0.6 J	ND@25	0.6 J	ND@50
CIS-1,2-DICHLOROETHENE	ug/L	22	97	89	84	79	3900
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@5.0	ND@2.5	ND@25	ND@2.5	ND@50
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@5.0	ND@2.5	ND@25	ND@2.5	ND@50
TETRACHLOROETHENE	ug/L	0.1 J	3.1 J	3.3	ND@25	2.9	31 J
TRICHLOROETHENE	ug/L	54	490	400	440	440	1600
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@5.0	ND@2.5	ND@25	ND@2.5	ND@50
VINYL CHLORIDE	ug/L	1.7	6.2	4.5	6 J	4.5	270

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	415	415	415	521	521	522
Sample Description	GW EXTR WELL	GW EXTR WELL	GW EXTR WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	04/04/2013	07/01/2013	10/04/2013	04/03/2013	10/03/2013	01/22/2013
Laboratory Sample I.D.	7011601	7116772	7226329	7011571	7225613	6932890
Sample Comment Codes				P	P	P

Parameter	Units	415	415	415	521	521	522
<b>Indicator Parameters</b>							
PH	SU	6.66	6.72	6.76	6.82	7.21	6.97
SPECIFIC CONDUCTANCE	umhos/cm	5107	539	4710	2340	2500	2130
TEMPERATURE	C	15.7	17.2	18.7	11.9	15.1	9.3
TURBIDITY	NTU	1.76	3.79	21.2	1.05	11.4	0.73
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	2200	2100	2300	2.7	ND@0.5	45
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	140	210	220	0.4 J	0.7	6.4
1,1,2-TRICHLOROETHANE	ug/L	ND@50	ND@50	10 J	ND@1.0	ND@0.5	ND@1.0
1,1-DICHLOROETHANE	ug/L	1700	1500	1400	51	45	190
1,1-DICHLOROETHENE	ug/L	1300	1300	1300	0.5 J	1.4	18
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@50	ND@50	12 J	1.2	1.6	3.4
1,2-DICHLOROETHANE (EDC)	ug/L	ND@50	ND@50	ND@25	ND@1.0	ND@0.5	ND@1.0
CHLOROETHANE	ug/L	ND@50	ND@50	ND@25	0.5 J	20	1.0
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@50	ND@50	ND@25	ND@1.0	ND@0.5	ND@1.0
CIS-1,2-DICHLOROETHENE	ug/L	3500	3400	3500	0.7 J	1.6	17
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@50	ND@50	ND@25	ND@1.0	ND@0.5	ND@1.0
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@50	ND@50	ND@25	ND@1.0	ND@0.5	ND@1.0
TETRACHLOROETHENE	ug/L	32 J	32 J	35	ND@1.0	ND@0.5	ND@1.0
TRICHLOROETHENE	ug/L	1500	1500	1500	ND@1.0	ND@0.5	6.1
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@50	ND@50	ND@25	ND@1.0	ND@0.5	ND@1.0
VINYL CHLORIDE	ug/L	190	240	180	1.0	2.4	4.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	522	522	522	524	524	529
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	04/03/2013	07/01/2013	10/03/2013	04/03/2013	10/02/2013	01/22/2013
Laboratory Sample I.D.	7011576	7116778	7225616	7011580	7225589	6932889
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units	522	522	522	524	524	529
<b>Indicator Parameters</b>							
PH	SU	6.91	6.98	7.03	7.20	7.15	7.18
SPECIFIC CONDUCTANCE	umhos/cm	2469	2450	2530	1948	2310	828
TEMPERATURE	C	11.5	16.6	15.3	9.9	12.0	7.6
TURBIDITY	NTU	1.33	0.52	2.19	1.05	1.90	0.96
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	59	94	110	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	6.7	12	12	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@1.0	ND@1.0	ND@1.0	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	240	310	290	0.1 J	0.1 J	0.1 J
1,1-DICHLOROETHENE	ug/L	16	24	23	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	4.2	5.7	5.2	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@1.0	ND@1.0	ND@1.0	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	1.0	1.2	0.8 J	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@1.0	ND@1.0	ND@1.0	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	15	23	24	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@1.0	ND@1.0	ND@1.0	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@1.0	ND@1.0	ND@1.0	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@1.0	ND@1.0	ND@1.0	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	5.4	11	12	ND@0.5	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@1.0	ND@1.0	ND@1.0	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	5.2	7.2	5.3	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	529	529	529	532	532	532
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	04/03/2013	07/01/2013	10/03/2013	01/25/2013	04/03/2013	07/02/2013
Laboratory Sample I.D.	7011570	7116777	7225614	6934807	7011581	7116807
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units	529	529	529	532	532	532
<b>Indicator Parameters</b>							
PH	SU	7.22	6.81	6.80	7.05	6.97	6.84
SPECIFIC CONDUCTANCE	umhos/cm	923	1290	1450	1324	1205	1380
TEMPERATURE	C	8.8	16.4	20.2	7.6	6.9	15.6
TURBIDITY	NTU	0.78	0.90	3.21	0.46	0.98	1.49
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.2 J	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	0.3 J	0.5	0.2 J	0.2 J	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.1 J	ND@0.5	0.1 J
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	532	534	534	534	534	540
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date	10/02/2013	01/22/2013	04/03/2013	07/01/2013	10/03/2013	01/22/2013
Laboratory Sample I.D.	7225590	6932887	7011575	7116775	7225618	6932860
Sample Comment Codes	P	P	P	P	P	P

Parameter	Units	532	534	534	534	534	540
<b>Indicator Parameters</b>							
PH	SU	6.86	7.14	6.95	7.08	7.30	7.52
SPECIFIC CONDUCTANCE	umhos/cm	1890	3067	3557	2370	2000	681
TEMPERATURE	C	14.3	7.9	8.8	16.7	20.5	10.3
TURBIDITY	NTU	1.95	0.87	1.17	0.73	1.99	1.05
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	0.3 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	0.4 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	540	541	541	542	542	543	
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	
Sample Date	07/02/2013	01/22/2013	07/02/2013	01/22/2013	07/02/2013	01/22/2013	
Laboratory Sample I.D.	7116801	6932862	7116802	6932861	7116803	6932858	
Sample Comment Codes	P	P	P	P	P	P	
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	7.43	7.27	6.60	7.55	7.04	7.16
SPECIFIC CONDUCTANCE	umhos/cm	830	731	1331	839	1010	1446
TEMPERATURE	C	13.9	9.7	16.1	10.0	15.8	10.8
TURBIDITY	NTU	1.51	0.68	0.40	1.08	1.94	0.66
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	1.4
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.2 J
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	1.6
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	0.1 J	ND@0.5	ND@0.5	ND@0.5	1.7
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	1.0	1.9	0.2 J	ND@0.5	0.2 J
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.8	1	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	543	601	601	602	602	603	
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	
Sample Date	07/02/2013	04/03/2013	10/02/2013	04/03/2013	10/02/2013	04/04/2013	
Laboratory Sample I.D.	7116800	7011585	7225588	7011586	7225586	7011589	
Sample Comment Codes	P	P	P	P	P	P	
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.67	6.82	6.49	7.23	6.05	7.44
SPECIFIC CONDUCTANCE	umhos/cm	1990	3108	2580	886	2980	619
TEMPERATURE	C	13.3	5.4	14.4	6.3	12.3	5.6
TURBIDITY	NTU	2.11	0.84	1.98	0.76	1.44	0.68
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.2 J	14	0.4 J
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	1.3	ND@0.5	ND@0.5	ND@0.5	0.4 J	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	0.1 J	0.7	0.2 J	ND@0.5	3.8	0.5 J
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	2.7	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	1.6	ND@0.5	ND@0.5	ND@0.5	0.2 J	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	1.6	ND@0.5	ND@0.5	ND@0.5	2.3	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	0.1 J	0.1 J	0.4 J	22	0.6
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	603	604	604	605	606	606	
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	
Sample Date	10/02/2013	04/02/2013	10/04/2013	10/04/2013	01/22/2013	04/03/2013	
Laboratory Sample I.D.	7225582	7009925	7226325	7226326	6932891	7009930	
Sample Comment Codes	P	P	P	P	P	P	
Parameter	Units						
<b>Indicator Parameters</b>							
PH	SU	6.76	5.99	6.22	6.37	7.08	6.34
SPECIFIC CONDUCTANCE	umhos/cm	1310	3317	3480	1420	829	3986
TEMPERATURE	C	12.7	11.6	17.0	14.3	9.4	11.4
TURBIDITY	NTU	1.91	0.83	1.68	2.27	0.74	1.25
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	0.3 J	ND@0.5	ND@0.5	ND@0.5	2.4	1.4
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	0.4 J	ND@0.5	ND@0.5	ND@0.5	2.0	1.4
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	1.4	0.8
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.7	0.6
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	0.6	ND@0.5	ND@0.5	0.6	4.4	2.6
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J	0.1 J

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	606	606	607	607	607	607	
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	
Sample Date	07/02/2013	10/03/2013	01/22/2013	04/03/2013	07/02/2013	10/03/2013	
Laboratory Sample I.D.	7116809	7225625	6932892	7009931	7116810	7225626	
Sample Comment Codes	P	P	P	P	P	P	
Parameter	Units						
<b>Indicator Parameters</b>							
PH	SU	6.52	6.70	7.06	6.87	6.91	7.02
SPECIFIC CONDUCTANCE	umhos/cm	1500	860	1413	1823	1970	1560
TEMPERATURE	C	15.3	11.9	11.1	11.1	14.2	12.1
TURBIDITY	NTU	3.33	1.78	0.64	1.08	1.75	1.54
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	3.7	2.0	3.3	4.5	4.2	3.2
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	0.2 J	0.2 J	0.2 J	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	1.7	2.3	4.5	5.7	5.7	4.6
1,1-DICHLOROETHENE	ug/L	1.6	1.2	2.3	2.6	2.6	1.8
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	1.1	1.9	0.6	0.6	0.6	0.5 J
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	7.6	1.7	5.2	6.3	5.7	4.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.4 J	0.3 J	0.4 J	0.4 J	0.5	0.4 J

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		608	608	609	610	610	611
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		04/04/2013	10/02/2013	10/03/2013	04/02/2013	10/03/2013	04/02/2013
Laboratory Sample I.D.		7011588	7225587	7225633	7009918	7225619	7009919
Sample Comment Codes		P	P	P	P	P	
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.74	6.64	6.92	5.40	6.00	6.46
SPECIFIC CONDUCTANCE	umhos/cm	1952	2290	2170	23194	9130	22993
TEMPERATURE	C	5.4	13.3	13.8	12.2	16.9	9.4
TURBIDITY	NTU	0.72	1.97	1.87	2.41	4.38	56.5
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	12	1.1	3400	180	160	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.6	0.2 J	470	10	10	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@25	2.5	2.4	ND@0.5
1,1-DICHLOROETHANE	ug/L	11	8.4	2400	68	51	0.9
1,1-DICHLOROETHENE	ug/L	5.1	2.1	110	99	92	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.6	0.5 J	55	0.9	0.7	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@25	0.9	0.9	ND@0.5
CHLOROETHANE	ug/L	0.2 J	ND@0.5	ND@25	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@25	0.8	0.7	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	1.6	2.9	110	70	59	0.3 J
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@25	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@25	2.8	2.4	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@25	24	21	ND@0.5
TRICHLOROETHENE	ug/L	23	12	190	240	230	0.4 J
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@25	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.2 J	2.6	9.8 J	0.4 J	0.3 J	0.2 J

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		611	612	612	613	613	614
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		10/03/2013	04/02/2013	10/03/2013	04/02/2013	10/03/2013	01/24/2013
Laboratory Sample I.D.		7225620	7009920	7225631	7009921	7225632	6934301
Sample Comment Codes			P	P	P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.73	5.50	5.55	5.14	5.21	7.58
SPECIFIC CONDUCTANCE	umhos/cm	16080	6228	9090	10036	9870	452
TEMPERATURE	C	21.2	12.4	13.9	13.5	13.8	9.4
TURBIDITY	NTU	152	1.08	1.62	1.16	1.76	0.76
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	310	290	180	140	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	9.7	7.4	6.6	4.8	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	2.7	2.4 J	1.8	1.4	ND@0.5
1,1-DICHLOROETHANE	ug/L	1.1	140	120	96	71	0.2 J
1,1-DICHLOROETHENE	ug/L	ND@0.5	120	100	69	51	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	2.0	ND@5.0	1.6	1.2	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	2.6	2.2 J	1.5	1.3	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	1.8	1.5 J	2.3	1.9	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	0.6 J	ND@5.0	0.6 J	0.4 J	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.6	140	130	100	81	0.5 J
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@1.0	ND@5.0	ND@1.0	ND@1.0	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	11	9.0	5.7	4.3	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	4.4	3.5 J	11	8.4	ND@0.5
TRICHLOROETHENE	ug/L	0.6	850	700	380	300	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@1.0	ND@5.0	ND@1.0	ND@1.0	ND@0.5
VINYL CHLORIDE	ug/L	0.2 J	9.3	7.2	8.0	6.6	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		615	616	616	617	617	618
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		10/02/2013	04/02/2013	10/03/2013	04/02/2013	10/03/2013	04/02/2013
Laboratory Sample I.D.		7225585	7009924	7226316	7009922	7225634	7009923
Sample Comment Codes		P	P	P	P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	7.16	6.16	6.41	6.96	7.01	6.57
SPECIFIC CONDUCTANCE	umhos/cm	2080	621	640	1142	970	523
TEMPERATURE	C	10.3	12.1	14.6	12.7	14.1	7.2
TURBIDITY	NTU	1.51	1.05	1.98	0.81	1.79	0.91
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	0.3 J	0.3 J	0.2 J	0.2 J	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	0.3 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	0.5	0.5 J	ND@0.5	ND@0.5	17
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

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Sample Location		618	619	620	621	621	622
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		10/02/2013	01/22/2013	07/02/2013	01/22/2013	07/03/2013	01/22/2013
Laboratory Sample I.D.		7225604	6932855	7116812	6932852	7119166	6932853
Sample Comment Codes		P	P		P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.56	7.35	6.74	6.39	6.13	6.38
SPECIFIC CONDUCTANCE	umhos/cm	510	1288	438	2062	3100	1970
TEMPERATURE	C	13.0	8.7	17.1	10.9	13.3	11.6
TURBIDITY	NTU	2.76	0.65	18.2	0.63	2.58	0.51
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	330	0.9	73	100	18
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	35	ND@0.5	4.3	4.7	0.4 J
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@5.0	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	380	ND@0.5	90	110	46
1,1-DICHLOROETHENE	ug/L	ND@0.5	84	ND@0.5	12	10	2.6
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	3.6 J	ND@0.5	1.9	2.1	0.9
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	1.8 J	ND@0.5	0.2 J	0.3 J	0.1 J
CHLOROETHANE	ug/L	ND@0.5	1.2 J	ND@0.5	0.2 J	0.2 J	0.1 J
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@5.0	ND@0.5	0.2 J	0.1 J	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@5.0	ND@0.5	0.1 J	ND@0.5	0.2 J
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@5.0	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@5.0	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@5.0	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	14	7.7	ND@0.5	2.9	2.1	1.2
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@5.0	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	1.5 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

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Sample Location	622	623	624	625	625	625	
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	
Sample Date	07/03/2013	01/25/2013	01/25/2013	01/22/2013	04/03/2013	07/01/2013	
Laboratory Sample I.D.	7119167	6934808	6934809	6932877	7011579	7116760	
Sample Comment Codes	P	P	P	P	P	P	
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	6.43	6.68	6.55	7.07	7.51	7.45
SPECIFIC CONDUCTANCE	umhos/cm	2630	2144	1724	613	852	670
TEMPERATURE	C	13.1	10.9	10.7	10.0	9.7	12.0
TURBIDITY	NTU	3.22	0.46	0.31	0.95	0.95	1.94
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	68	29	55	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	2.6	0.6	1.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	94	20	46	2.6	3.3	2.9
1,1-DICHLOROETHENE	ug/L	8.6	2.5	5.9	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	1.8	0.4 J	0.7	1.1	1.2	2
1,2-DICHLOROETHANE (EDC)	ug/L	0.2 J	ND@0.5	0.2 J	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	0.2 J	ND@0.5	0.1 J	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	0.2 J	ND@0.5	0.1 J	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.1 J	ND@0.5	ND@0.5	0.4 J	0.2 J	0.4 J
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	2.2	1.3	3.2	0.3 J	0.1 J	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	7.1	5.3	20

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Sample Location	625	626	626	627	627	628	
Sample Description	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	
Sample Date	10/02/2013	01/22/2013	07/01/2013	01/25/2013	07/01/2013	01/25/2013	
Laboratory Sample I.D.	7225596	6932878	7116761	6934800	7116771	6934801	
Sample Comment Codes	P	P	P	P	P	P	
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	7.49	7.14	7.16	6.53	6.12	7.10
SPECIFIC CONDUCTANCE	umhos/cm	780	474	538	337	422	452
TEMPERATURE	C	11.3	10.5	10.8	8.3	11.2	9.2
TURBIDITY	NTU	2.36	0.93	1.53	0.49	1.03	0.77
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	0.1 J	ND@0.5	0.5 J	0.4 J	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	3.7	2.9	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	2.8	0.2 J	0.1 J	0.6	0.3 J	0.2 J
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.2 J	0.1 J	0.1 J
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	2.3	0.3 J	0.5	2.6	1.9	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	1.7	1.4	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.7	0.4 J	0.6	9.6	6.8	1.9
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.5	0.5 J	ND@0.5
TRICHLOROETHENE	ug/L	0.1 J	0.4 J	ND@0.5	19	32	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	16	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.2 J

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		629	630	631	631	632	632
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		01/22/2013	01/23/2013	01/23/2013	07/02/2013	01/23/2013	07/02/2013
Laboratory Sample I.D.		6932866	6932867	6932869	7116806	6934286	7116808
Sample Comment Codes		P	P	P	P	P	P
<b>Parameter</b>	<b>Units</b>						
<b>Indicator Parameters</b>							
PH	SU	7.59	7.47	7.24	6.77	6.40	6.07
SPECIFIC CONDUCTANCE	umhos/cm	344	655	353	445	2980	3530
TEMPERATURE	C	9.6	9.4	9.6	12.3	8.9	13.8
TURBIDITY	NTU	0.47	0.39	0.56	2.27	0.68	4.55
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	2.2	0.3 J	0.5	0.8	8.1
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.2 J
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	0.8	0.1 J	0.2 J	ND@0.5	0.2 J
1,1-DICHLOROETHENE	ug/L	ND@0.5	1.0	ND@0.5	ND@0.5	ND@0.5	0.3 J
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	2.4	0.5 J	1.3	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	5.7	2.4	3.9	1.1	7.1
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location		P04	P08	P11
Sample Description		GW MON WELL	GW MON WELL	GW MON WELL
Sample Date		10/02/2013	01/22/2013	01/22/2013
Laboratory Sample I.D.		7225603	6932856	6932854
Sample Comment Codes		P	P	P
<b>Parameter</b>	<b>Units</b>			
<b>Indicator Parameters</b>				
PH	SU	6.84	6.65	7.31
SPECIFIC CONDUCTANCE	umhos/cm	590	3471	982
TEMPERATURE	C	18.4	7.7	10.5
TURBIDITY	NTU	1.41	0.64	0.92
<b>Volatile Organics</b>				
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	31	23
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	10	1.7
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	96	28
1,1-DICHLOROETHENE	ug/L	ND@0.5	9.1	2.1
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	2.6	0.4 J
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	0.1 J	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	0.6	0.1 J
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	0.6	0.2 J
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	0.1 J	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	ND@0.5	0.3 J
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	0.2 J	ND@0.5

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**Groundwater Analytical Chemistry Data**

**Owego, New York**

January 1, 2013 - December 31, 2013

**Explanation of Reporting Conventions and Key to Comment Codes**

**Reporting Conventions**

NA Not Analyzed  
ND@X Not Detected at Detection Limit X

**Code Explanation**

J Estimated value: the result is  $\geq$  the Method Detection Limit (MDL) and  $<$  the Limit of Quantitation (LOQ).  
P Sampled with a passive diffusion bag (PDB) sampling device.

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**APPENDIX G**

**QUALITY CONTROL ANALYTICAL CHEMISTRY DATA  
FOR ENVIRONMENTAL BLANKS  
January 1, 2013 – December 31, 2013**

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**Quality Control Analytical Chemistry Data (Environmental Blanks)**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK
Sample Description	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND
Sample Date	01/22/2013	01/22/2013	01/24/2013	01/25/2013	04/02/2013	04/03/2013
Laboratory Sample I.D.	6932859	6932882	6934297	6934811	7009913	7011572
Sample Comment Codes						

Parameter	Units						
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	0.1 J	0.2 J	0.1 J	0.1 J	ND@0.5	0.1 J
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J	0.2 J
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.1 J	0.2 J
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	0.3 J	0.3 J	0.3 J	0.3 J	0.4 J	0.5 J
TRICHLOROFUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Quality Control Analytical Chemistry Data (Environmental Blanks)**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK	EQ RINSE BLK
Sample Description	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND	WTR LVL IND
Sample Date	04/04/2013	07/01/2013	07/02/2013	07/03/2013	10/02/2013	10/03/2013
Laboratory Sample I.D.	7011598	7116768	7116779	7119169	7225578	7225615
Sample Comment Codes						

Parameter	Units						
<b>Volatile Organics</b>							
1,1,1-TRICHLOROETHANE	ug/L	0.2 J	0.1 J	0.1 J	0.2 J	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.2 J	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	0.2 J	0.2 J	0.1 J	0.2 J	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.1 J	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.2 J	0.2 J	0.2 J	0.2 J	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	0.5	1.1	1	1.1	ND@0.5	ND@0.5
TRICHLOROFUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Quality Control Analytical Chemistry Data (Environmental Blanks)**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	EQ RINSE BLK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
Sample Description	WTR LVL IND	1/22-1/24	1/22-1/24	1/23-1/25	1/24-1/26	1/25-1/26
Sample Date	10/04/2013	01/22/2013	01/22/2013	01/23/2013	01/24/2013	01/25/2013
Laboratory Sample I.D.	7226320	6932847	6932872	6934281	6934799	6934810
Sample Comment Codes						

Parameter	Units					
<b>Volatile Organics</b>						
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	0.2 J	0.2 J	0.1 J	0.1 J
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	ND@0.5	0.3 J	0.3 J	0.3 J	0.3 J
TRICHLOROFUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Quality Control Analytical Chemistry Data (Environmental Blanks)**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
Sample Description	4/2-4/4	4/2-4/5	4/3-4/5	7/1-7/3	7/2-7/3	7/2-7/6
Sample Date	04/02/2013	04/02/2013	04/03/2013	07/01/2013	07/02/2013	07/02/2013
Laboratory Sample I.D.	7009909	7011569	7011594	7116759	7116791	7119160
Sample Comment Codes						

Parameter	Units					
<b>Volatile Organics</b>						
1,1,1-TRICHLOROETHANE	ug/L	ND@0.5	0.1 J	0.2 J	0.1 J	0.2 J
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	0.2 J
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	0.1 J	0.2 J	0.2 J	0.1 J	0.2 J
1,1-DICHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	0.1 J	0.1 J
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.1 J	0.1 J	0.2 J	0.2 J	0.2 J
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	0.3 J	0.4 J	0.6	1.1	1.1
TRICHLOROFUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5

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**Quality Control Analytical Chemistry Data (Environmental Blanks)**

**Owego, New York**

January 1, 2013 - December 31, 2013

Sample Location	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
Sample Description	7/3-7/6	10/2-10/4	10/2-10/4	10/3-10/5	10/3-10/5
Sample Date	07/03/2013	10/02/2013	10/02/2013	10/03/2013	10/03/2013
Laboratory Sample I.D.	7119176	7225575	7225605	7226315	7226318
Sample Comment Codes					

Parameter	Units	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK	TRIP BLANK
<b>Volatile Organics</b>						
1,1,1-TRICHLOROETHANE	ug/L	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	0.3 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1,2-TRICHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHANE	ug/L	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,1-DICHLOROETHENE	ug/L	0.1 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLORO-1,2,2-TRIFLUOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
1,2-DICHLOROETHANE (EDC)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROETHANE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CHLOROFORM (TRICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
CIS-1,2-DICHLOROETHENE	ug/L	0.2 J	ND@0.5	ND@0.5	ND@0.5	ND@0.5
DICHLORODIFLUOROMETHANE (FREON 12)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
METHYLENE CHLORIDE (DICHLOROMETHANE)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TETRACHLOROETHENE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
TRICHLOROETHENE	ug/L	1.2	0.1 J	ND@0.5	ND@0.5	ND@0.5
TRICHLOROFLUOROMETHANE (FREON 11)	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5
VINYL CHLORIDE	ug/L	ND@0.5	ND@0.5	ND@0.5	ND@0.5	ND@0.5



**Quality Control Analytical Chemistry Data (Environmental Blanks)**

**Owego, New York**

January 1, 2013 - December 31, 2013

**Explanation of Reporting Conventions and Key to Comment Codes**

**Reporting Conventions**

NA Not Analyzed  
ND@X Not Detected at Detection Limit X

**Code Explanation**

J Estimated value: the result is  $\geq$  the Method Detection Limit (MDL) and  $<$  the Limit of Quantitation (LOQ).