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2016 PERIODIC REVIEW REPORT (PRR)
FORMER SCM – CORTLANDVILLE
839 NYS ROUTE 13
CORTLANDVILLE, NEW YORK 13045
SITE NO.: 712006

Prepared For:
New York State Department of Environmental Conservation
625 Broadway, BURE
Albany, New York 12233

Owner:
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January 2017

GeoLogic Project No. 210087

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**2016 PERIODIC REVIEW REPORT
FORMER SCM - CORTLANDVILLE
839 NYS ROUTE 13, CORTLANDVILLE, NEW YORK 13045
SITE NO.: 712006**

1 INTRODUCTION

This report provides the basis for review and certification of the groundwater treatment system and the institutional and engineering controls (IC's/EC's) implemented at Site No. 712006. Signed Institutional and Engineering Controls Certification Forms are included in Appendix A.

The Site is currently owned by Cortland Commerce Center, LLC (CCC) and this report is prepared and submitted at the direction of CCC, consistent with the Site's remedial program as approved by the New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH). The reporting period addressed in this report is January 1, 2016 to December 31, 2016.

In June and November 2016, beaver activity blocked the pipe between the cascade and infiltration lagoons. The necessary permit was procured and the beaver and blockage were removed. A copy of the permit is included with the IC/EC Certification Forms in Appendix A.

1.1 Summary of Site

Former manufacturing activities at the Site resulted in contamination of soil and groundwater with chlorinated organic solvents, primarily trichloroethylene (TCE) and its decomposition products. In 1986, the contaminant plume was found to extend approximately 1.5 miles downgradient (north) of the Site. The potential contaminant sources identified included a 3,000-gallon aboveground storage tank (AST) that formerly contained TCE, a 20,000-gallon underground storage tank (UST) that formerly contained tramp oil and four areas of stained surface soil associated with past material handling practices. Additionally, a former tumbling area was identified within the building footprint (adjacent to monitoring well MW-L16).

Remedial measures implemented at the Site have included installing a soil vapor extraction (SVE) system and a groundwater pump and treat system. The SVE system was activated in 1990 and subsequently dismantled at an unknown date between 1996 and 1998. The groundwater remediation system is currently in operation. In June 1994, the Classification of the Site was changed from 2 to 4 (site properly closed – required continued management).

2 SITE OVERVIEW

2.1 Site Location and Description

The Site is located at 839 NYS Route 13, Town of Cortlandville, County of Cortland and State of New York (Appendix B, Drawing No. 1).

The Site is approximately 47.4 acres in size and is developed with a one-story building occupying approximately 415,000 square feet. The building is utilized for office space, warehouse storage and manufacturing. The remainder of the Site consists of employee parking areas, several small outbuildings, treated water infiltration lagoons and vacant undeveloped land.

The Site is bordered on the north by Lime Hollow Road and a predominately residential area. It is bordered on the east by NYS Route 13 and a predominately commercial area. It is bordered on the south by a cemetery and the JM Murray Center (formerly part of the Smith Corona complex). It is bordered on the west by a mixture of undeveloped land, agricultural land and some residential properties.

2.2 Site History

The Site was formerly owned and operated by Smith Corona Corporation (SCC), previously known as SCM Corporation (SCM). SCC utilized the Site for the purposes of manufacturing typewriters. Trichloroethylene was used on the Site by SCC during manufacturing processes.

In 1999, S. C. W. P., LLC (SCWP) purchased land and buildings from SCC and assumed operational responsibilities for the groundwater remediation system.

Cortland Commerce Center, LLC (CCC) purchased the Site in May of 2010 from SCWP and assumed operational responsibilities for the groundwater remediation system.

2.3 Nature and Extent of Contamination

The Site overlies the Otter Creek/Dry Creek aquifer. Town of Cortlandville municipal water wells are located approximately 2,300 feet west of the Site and the City of Cortland municipal water wells are located approximately 1.5 miles north-northeast of the Site.

In or around 1986 a plume of contaminated groundwater was detected during the investigation of an unrelated petroleum spill. This plume extended from the Site approximately 1.5 miles downgradient (generally north) toward the City of Cortland municipal well field. The contaminants in this plume were identified as (TCE) and related decomposition products.

In accordance with the 1989 Settlement Agreement, monitoring of off-site groundwater contamination has been conducted periodically by the NYSDEC, Cortland County Soil and Water Conservation District and the Cortland County Health Department.

2.4 Chronology of Site Remediation Activities

The remediation system, consisting of a recovery well, aeration tower, pipeline, rock cascade and an infiltration lagoon system, remains in place and has not been modified since its original construction.

A brief summary of the Site remediation activities undertaken over the past 25 years is presented below¹:

- October 1986 - March 1987: Use of TCE was discontinued. Various aboveground storage tanks (AST's) and underground storage tanks (UST's) containing TCE, tramp oil, fuel oil and muriatic acid were removed. Visibly contaminated soil encountered during the tank work was also removed. In addition, four areas of stained soil related to past material handling practices were excavated and disposed of off-site.
- January 1989: The Settlement Agreement for remediation of the Site was signed between the NYSDEC, other parties, and SCC on January 12, 1989.
- September – December 1989: Approval of the remediation Phase I design was obtained from the NYSDEC on September 22, 1989. Phase I consisted of investigation, design, construction and installation of a groundwater recovery well. The groundwater recovery well came on-line on December 29, 1989. The water from the recovery well was utilized for non-contact cooling purposes and discharged into an existing sewer line until the Phase II system could be completed.
- May 1990: Approval of the remediation Phase II design was obtained from the NYSDEC on May 29, 1990. Phase II included installation of a (SVE) system and groundwater remediation system. The groundwater remediation system consisted of an air stripping column (aeration tower), distribution piping (water from recovery well to the air stripper and from the air stripper to the rock cascade and infiltration lagoons), a rock cascade and engineered infiltration lagoons.
- August 1990: The SVE system came on-line.
- October 1990: The groundwater remediation system came on-line.
- 1996-1998: At an unknown date, the SVE system was shutdown and decommissioned. GeoLogic has not located or reviewed documentation related to the shutdown of the SVE system.
- 1997-1998: At an unknown date, the well monitoring frequency was reduced to annual. GeoLogic has not located or reviewed documentation related to the modification of the sampling frequency.
- April 1999: SCWP purchased the SCC land and buildings and assumed operational responsibilities for the groundwater remediation system.
- May 2001: With the permission of the NYSDEC, the stripping tower blower was turned off. The influent TCE concentration had reduced to the point that the tower was able to reduce TCE levels adequately to meet discharge limits without forced airflow. Sampling frequency of the tower influent, tower discharge and outfall cascade was increased from quarterly to monthly.
- December 2008: a former tumbling area was identified within the building footprint and a groundwater monitoring well (MW-L16) was installed in this area.

- May 2010: CCC purchased the SCWP land and buildings and assumed operational responsibilities for the groundwater remediation system.
- January 2012: A sub-slab depressurization/SVE system was energized in the former tumbling area located adjacent to monitoring well MW-L16.

2.5 Cleanup and Site Closure Criteria

The site-wide groundwater cleanup criteria for the Site are the New York State Class GA groundwater quality standards. Currently, the standard for TCE is 5 µg/L.

All Site wells are required to be monitored a minimum of annually until all wells meet the clean-up criteria. When all wells meet the clean-up criteria, the remediation system may be shut down.

Groundwater monitoring will continue for a period of five years after the remedial system is shut down. If at any time during the post-remediation monitoring period any of the samples exceed the site-wide clean-up criteria, the system will be restarted. For the first two years, post-remediation monitoring will occur quarterly, then semi-annual for the next two years and finally once in the fifth year. If the remedial system must be restarted for any reason, the five year post shut-down monitoring program will be restarted once the site-wide cleanup criteria has been re-achieved.

3 INSTITUTIONAL AND ENGINEERING CONTROLS

Signed Institutional and Engineering Controls Certification Forms are included in Appendix A.

3.1 Summary of Institutional Controls (IC's)

No IC's are identified in the Settlement Agreement or Record of Decision.

3.2 Summary of Engineering Controls (EC's)

The EC's implemented at the Site are described below:

- A groundwater remediation system consisting of an air stripping column (aeration tower), distribution piping (water from recovery well to the aeration tower and from the aeration tower to the infiltration lagoons) and an engineered rock cascade and infiltration lagoons has been operating at the Site since 1990.

Periodic monitoring of system performance is performed. The system must continue to operate until groundwater quality meets the clean-up criteria for the Site. It should also be noted that although not required to be operated at present, the blowers (primary and back up) for the air stripper must remain in place and in good working order.

3.2.1 Summary of EC Operations During Reporting Period

Site Monitoring & Groundwater Treatment System

The groundwater remediation system has operated without major breakdown during this reporting period. The pumping rate was checked during monthly sampling events and the average flow rate for the year was 568 gallons per minute (gpm), which is less than the design standard of 700 to 1,000 gpm². Routine maintenance has been performed on system components on an as-needed basis. Charts 14 and 15, located in Appendix D, depict a comparison of recovery well groundwater elevations and pumping rates for 2012, 2013, 2014, 2015 and 2016.

Both the primary and back-up blowers were energized and determined to be operational on December 13, 2016.

During the annual sampling event, all wells (except MW-2D), were in good working order and able to be sampled. MW-2D remains blocked at a depth of 50 feet. It is likely that large gravel entered the well when it was originally damaged and that the gravel has become lodged in the well casing. Quarterly monitoring of well MW-10D continues to supplement the monitoring of conditions at the down gradient property boundary.

Sub-Slab Depressurization (SSD)/Soil Vapor Extraction (SVE) System

The sub-slab depressurization (SSD)/soil vapor extraction (SVE) system, installed in the vicinity of the former tumbling pit, has operated without major breakdown during this reporting period. The system consists of a single extraction point (well MW-L16) connected at a Gast Model R6P350A regenerative blower that extracts 218 cubic feet per minute (cfm) of vapor from under and around the former tumbling pit. Routine maintenance has been performed on system components on an as-needed basis.

A sample of the system emissions was obtained on November 15, 2016. The TCE concentration was reported at 2,200 µg/m³. This is over an 87% decline from the initial concentration of 18,000 µg/m³ detected in the sample collected on January 10, 2012. The analytical results demonstrate that the system has been and remains effective in removing residual contamination from under and around the former tumbling pit. Table 5 and Chart 16, located in Appendix C and Appendix D respectively; depict the TCE concentrations observed in the SSD/SVE exhaust samples collected since the system was energized in January 2012. The SSD/SVE analytical results are included in Appendix F.

4 MONITORING PLAN

4.1 Monitoring Plan Components

Monitoring at the Site consists of monthly sampling of the groundwater remediation system, quarterly monitoring of MW-10D and annual sampling of seventeen (17) groundwater monitoring wells (locations depicted on Drawing No. 2, Appendix B). Sampling event data trends and supporting charts are discussed in Section 5.

4.2 Summary of Monitoring Completed During Reporting Period

The following sampling events have taken place during this reporting period:

- Annual Sampling of Groundwater Monitoring Wells (11/14/2016 - 11/15/2016):
 - Interior Shallow Wells: MW-6, MW-7, MW-8, MW-11 and MW-12S;
 - Interior Deep Wells: MW-9 and MW-12D;
 - Perimeter Shallow Wells: MW-5S, MW-1S, MW-10S, MW-2S and MW-4S;
 - Perimeter Deep Wells: MW-4D, MW-5D, MW-1D and MW-10D;
 - Facility Well: MW-L16 (installed in 2008);
 - Quarterly Monitoring of MW-10D (February 2016, May 2016 and August 2016, plus November 2016 annual sampling).
- Monthly Groundwater Remediation System (36 total samples in 2016):
 - Treatment System Influent (12 samples in 2016);
 - Tower Discharge (12 samples in 2016);
 - Cascade Outfall (12 samples in 2016).

All groundwater samples were submitted for analysis to Life Science Laboratories, Inc., LSL Central Lab located at 5854 Butternut Drive, East Syracuse, New York. The groundwater samples were analyzed for specific Volatile Organic Compounds (VOC's) (1,1,1-Trichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethene, Trichloroethene, Tetrachloroethene and Vinyl Chloride) utilizing EPA Method 8260B.

4.2.1 Summary of Monthly Remediation System Sampling

Each month samples are collected at the Tower Influent, Tower Discharge and Cascade Outfall. The pumping rate is also recorded during each monthly sampling event. Samples are submitted for laboratory analysis, results are reviewed and monitoring reports are submitted to the NYSDEC and NYSDOH after each monthly sampling event.

4.2.2 Summary of Annual Sampling Event

The depth to groundwater was measured in each of the seventeen (17) monitoring wells prior to collecting groundwater samples during the November 14 and November 15, 2016 annual sampling event. Based on recorded water levels,

shallow and deep groundwater contour maps were prepared (Drawing No. 3 and No. 4, Appendix B). Generally, the groundwater flow under non-pumping conditions for the Site is to the north-northwest. The recovery well continues to depress the water table sufficiently to influence groundwater flow at the Site.

The field observations, including water levels, for the 2016 annual sampling event are summarized in Table 1, located in Appendix C.

Groundwater samples are submitted for laboratory analysis, results are reviewed and the results are detailed in the annual PRR for the Site. The laboratory reports for the 2016 Annual Sampling event and the monthly monitoring results (for November and December 2016) are included in Appendix E.

The results for the 2016 annual sampling event have been up-loaded to the NYSDEC EQUIS database.

4.3 Monitoring Deficiencies

During the annual sampling event (November 14 and November 15, 2016), the following deficiencies were noted:

- Monitoring well MW-2D was unable to be sampled due to blockage within the well at a depth of approximately 50 feet.

5 DATA TRENDS AND REMEDIAL EFFECTIVENESS

5.1 Data Summary

Data from the annual groundwater sampling event and monthly remediation system sampling events are summarized in the following tables and charts and are included in Appendix C and Appendix D.

- APPENDIX C: Tables
 - Table 1: Groundwater Sampling Field Observations;
 - Table 2: Summary of Groundwater Analytical Results;
 - Table 3: Monthly Analytical Results May 2001 – December 2016;
 - Table 4: Comparison of TCE Concentrations in Groundwater.
- APPENDIX D: Charts
 - Charts 1 through 4: Remediation System TCE Concentrations;
 - Charts 5 & 6: TCE Concentrations in Perimeter Shallow Wells;
 - Charts 7 & 8: TCE Concentrations in Perimeter Deep Wells;
 - Charts 9 & 10: TCE Concentrations in Interior Shallow Wells;
 - Charts 11 & 12: TCE Concentrations in Interior Deep Wells;
 - Chart 13: TCE Concentrations in MW-L16;

- Charts 14 & 15: 2012, 2013, 2014, 2015 & 2016 Recovery Well Pumping Rates & Groundwater Elevations;
- Chart 16: SSD/SVE Exhaust TCE Concentrations.

The monitoring wells are categorized into four (4) groups (Perimeter Shallow, Perimeter Deep, Interior Shallow and Interior Deep). Charts 5 through 12 depict the TCE concentrations for both the last 10 years and 20 years for each well group (Appendix D).

Monitoring well MW-L16 was installed in December 2008 and is located inside the facility adjacent to a former tumbling pit. The data from this well is included in Table 2, located in Appendix C. Chart 13 depicts the TCE concentrations detected in groundwater samples collected from MW-L16 (Appendix D).

5.2 Remediation System Data Trends

A total of twelve monthly sampling events have taken place during this reporting period. Sampling of the remediation system consists of collecting samples from three (3) locations: Cascade Outfall, Tower Discharge and Tower Influent. Charts 1 through 3, located in Appendix D, depict the TCE concentrations for each of the three sample locations. As indicated in Charts 1, 2 and 3 the TCE concentration at each of the sample locations exhibits a continued downward trend.

The average TCE concentrations for the 2016 samples are listed below:

- Tower Influent: 5.19 µg/L
- Tower Discharge: 2.23 µg/L
- Cascade Outfall: 0.93 µg/L

5.3 Groundwater Quality Data Trends

Groundwater quality data trends are broken-down by the four groups of monitoring wells indicated below:

- **Perimeter Shallow Wells (MW-1S, MW-2S, MW-4S, MW-5S and MW-10S)**

Three (3) of the five (5) perimeter shallow wells revealed TCE concentrations below the cleanup objective of 5 µg/L. Wells MW-1S and MW-10S, did not meet the cleanup objective (TCE concentrations of 10.10 µg/L and 6.42 µg/L respectively). The 2016 results were lower than the 2015 results for four (4) of the five (5) perimeter shallow wells. Although an increase was observed at MW-1S, all perimeter shallow wells continue to indicate a long term downward trend. Charts 5 and 6, located in Appendix D, depict 10-Year and 20-Year TCE concentrations for the perimeter shallow wells.

- **Perimeter Deep Wells (MW-1D, MW-2D, MW-4D, MW-5D and MW-10D)**

Four (4) of the five (5) perimeter deep wells were sampled in 2016; MW-2D could not be sampled due to a blockage. Three (3) of the four (4) perimeter deep wells revealed TCE concentrations below the cleanup objective of 5 µg/L.

Well MW-10D did not meet the cleanup objective (TCE concentration of 7.59 µg/L). The 2016 results for all four (4) wells were lower than last year and continue to indicate a long term downward trend. Charts 7 and 8, located in Appendix D, depict 10-Year and 20-Year TCE concentrations for the perimeter deep wells.

- **Interior Shallow Wells (MW-6, MW-7, MW-8, MW-11 and MW-12S)**

All five (5) interior shallow wells revealed TCE concentrations below the cleanup objective of 5 µg/L. The 2016 results for all five (5) wells were lower than last year and continue to indicate a long term downward trend. Charts 9 and 10, located in Appendix D, depict 10-Year and 20-Year TCE concentrations for the interior shallow wells.

- **Interior Deep Wells (MW-9 and MW-12D)**

Both of the interior deep wells revealed TCE concentrations below the cleanup objective of 5 µg/L. The 2016 results for both wells were lower than last year and continue to indicate a long term downward trend. Charts 11 and 12, located in Appendix D, depict 10-Year and 20-Year TCE Concentrations for the interior deep wells.

Table No. 4, located in Appendix C, compares the highest TCE concentration detected in each of the monitoring wells to the TCE concentration detected during the 2016 annual groundwater sampling event. The TCE concentrations have decreased in all of the wells at least 68%. TCE concentrations have decreased more than 85% in 11 of the 17 wells.

When comparing 2015 data to 2016 data, 16 of the 17 wells exhibited a declining TCE concentration. It is also noted that a TCE concentration above the cleanup objective, of 5 µg/L, was only observed in 3 of the 17 wells in 2016.

Overall the TCE concentrations detected in the wells continue to indicate a decreasing trend over a 20-year span since the current groundwater treatment system was activated.

5.4 Performance and Effectiveness of the IC's/EC's

The groundwater remediation system continued to be effective in 2016 as demonstrated by the continued decreasing trend of TCE concentrations in the monitoring wells over time.

However, the observed decline in the system operating conditions continued in 2016. The average withdrawal rate for 2016 was 568 gpm, which is less than the original design standard of 700 to 1,000 gpm².

Recovery well groundwater elevations and pumping rates for 2012, 2013, 2014, 2015 and 2016 were charted to assess if lower groundwater elevations are associated with the decline in pumping rates (Charts 13 and 14, located in Appendix D). Although a correlation between seasonal variation of groundwater elevation and pumping rate is evident, it is unlikely to be the sole cause of the decline in pumping rates observed in 2016.

The groundwater recovery well came on-line on December 29, 1989 and has operated continuously for the last 27 years with only routine maintenance. It is GeoLogic's opinion that the age of the system is likely contributing to the decline in system operating conditions.

As stated in Section 5.3, contaminant concentrations have shown a declining trend over the past 20 years. This is particularly evident at the wells along Lime Hollow Road, the downgradient side of the Site (wells MW-1S & MW-1D, MW-2S & MW-2D, MW-4S & MW-4D, and MW-10S & MW-10D). In 1990, the highest yearly average concentration of TCE in these wells was observed at well cluster MW-10S & MW-10D, 76 µg/L and 36 µg/L respectively. Over the past three years (2014-2016), the highest yearly average concentration of TCE has been 12.40 µg/L at MW-10S (2015) and 8.97 µg/L at MW-10D (2015). This represents a greater than 83% decline at MW-10S and greater than 75% decline at MW-10D over the past 26 years.

Contaminant trends in the interior wells (MW-6, MW-7, MW-8, MW-9, MW-11, MW-12S and MW-12D) echo those along the downgradient boundary. The highest average TCE concentration in 1990 was 1,549 µg/L at MW-11. Over the past three years (2014-2016), the highest average concentration has been 24.8 µg/L at MW-12S. This represents a greater than 98% decline over the past 26 years.

Given that contaminant concentrations at the Site have declined by an average of greater than 88% over the past 26 years, the system continues to be effective at removing contamination from the subsurface.

5.5 Contaminant Mass Removal

Using the following:

- Average pumping rate = 568 gpm
- Average influent concentration of TCE = 5.19 µg/L
- Density of TCE = 1.465 g/mL

The system removal rates for 2016 are:

- Total volume of water pumped = 298,540,800 gallons in 2016.
- Total mass of TCE removed= 5.87 Kg or 12.93 lb.
- Total volume of TCE removed = 4.0 L or 1.1 gal.

6 RECOMMENDATIONS

It is recommended that the current monthly remediation system sampling, quarterly sampling of MW-10D and annual groundwater sampling be conducted for another year. In addition, an annual submission of a Periodic Review Report is thought to be adequate to document data trends at the Site.

The next annual sampling event is scheduled for November 2017.

7 REFERENCES

- ¹ *2009 Periodic Review Report*, February 2010, Buck Engineering, LLC.
- ² *Remediation System As-Built Report*, December 1991, O'Brien & Gere.
- ³ *Focused Feasibility Study*, May 1988, O'Brien & Gere.

8 CERTIFICATION

Signed Institutional and Engineering Controls Certification Forms are included in Appendix A.

We certify that to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in 312.10 of 40 CFR 312. We further certify this report to be factually presented to the best of our knowledge and belief.

Prepared by,

GeoLogic NY, Inc.



Senior Author

Forrest Earl

President / Principal Hydrogeologist



Senior Reviewer

Kenneth J. Teter, P.E./K. Teter Consulting, LLC

NYS LN 081583

APPENDIX A

***INSTITUTIONAL AND ENGINEERING CONTROLS CERTIFICATION FORMS
AND PERMITS***



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



Site Details

Box 1

Site No. 712006

Site Name SCM - Cortlandville

Site Address: 839 Route 13 South Zip Code: 13045
City/Town: Cortlandville
County: Cortland
Site Acreage: 47.3

Reporting Period: January 01, 2016 to January 01, 2017

YES NO

1. Is the information above correct? ☒ YES ☐ NO

If NO, include handwritten above or on a separate sheet.

2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period? ☐ YES ☒ NO

3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))? ☐ YES ☒ NO

4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period? ☒ YES ☐ NO

Nuisance beaver and beaver dam removal
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.

- Copies of permits attached*
5. Is the site currently undergoing development? ☐ YES ☒ NO

Box 2

YES NO

6. Is the current site use consistent with the use(s) listed below?
Industrial ☒ YES ☐ NO

7. Are all ICs/ECs in place and functioning as designed? ☒ YES ☐ NO

IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

Description of Institutional ControlsParcel

95.00-10-01.100

Owner

David Yaman Realty Services

Institutional Control

Site Management Plan

Decision Document (ROD), Site Management Plan (SMP).

Description of Engineering ControlsParcel

95.00-10-01.100

Engineering Control

Vapor Mitigation
Groundwater Treatment System
Groundwater Containment

The ROD identified engineering controls required for OU1 (onsite). These controls include the continued operation and maintenance of the groundwater extraction & treatment system until groundwater quality meets the cleanup criteria of 5 ug/L for TCE for all wells.

The groundwater monitoring wells must be sampled at periodic intervals (currently annually). As outlined in 2001 correspondence, the groundwater extraction & treatment system may be operated without the blower component as long as effluent concentrations remain below 5 ug/L for TCE, and with monthly monitoring of the groundwater extraction & treatment system influent & effluent. The blower and a backup blower must remain in place and in working condition. The groundwater extraction system also acts as the onsite groundwater containment system, designed to eliminate contaminant migration offsite.

A Soil Vapor Extraction system was installed as part of the remedial program. The SVE was operational from August 1990 until operation was discontinued sometime after May 1994.

A sub-slab depressurization system (SSDS) is installed in portions of the main warehouse building in the area of the former Tumbling Pit. The SSDS is required to operate continuously.

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO



☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO



☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 712006

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1,2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Forrest Earl at Geologic NY, Inc.
print name 37 Gopsefaw Ave, Homer NY
print business address

am certifying as Representative for (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

[Signature]
Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

1-31-17
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I KENNETH J. TETER at 32 CLINTON STREET
HOMER, N.Y. 13077
print name print business address

am certifying as a Professional Engineer for the CORTLAND COMMERCE CENTER
(Owner or Remedial Party)

[Signature]
Signature of Professional Engineer, for the Owner or
Remedial Party, Rendering Certification



Stamp
(Required for PE)

1/31/17
Date

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, Bureau of Wildlife, Region 7

1285 Fisher Ave., Cortland, NY 13045

P: (607) 753-3095 ext. 247

www.dec.ny.gov**REG YEAR PERMIT #**

7

2016

1477

NUISANCE BEAVER PERMIT

Permit to kill or harass destructive wildlife pursuant to Environmental Conservation Law 11-0521

ISSUED TO:

David Yaman 839 NYS Route 13 Cortland, NY 13045	Cortland Commerce Center Home: (607) 756-5872
---	--

LOCATION OF PROBLEM:

County: Cortland	Street/Loc: 839 NYS Route 13
Town: Cortlandville	
WMU: 7M	
UTM E: N:	TaxID: 95.00-10-01.100
	WaterCourse:

NATURE OF COMPLAINT:

Commercial

ACTIONS AUTHORIZED:

Kill by shooting	Kill by trapping
Disturb/remove beaver dam	Set traps within 15 feet of beaver dam
Set traps within 15 feet of beaver lodge	

Issue Date: 6/29/2016	Other Permits Issued Pursuant to General	Issuing Agent:
Expiration Date: 12/31/2016	Permit GP-0-06-001: <input type="checkbox"/> Article 15 <input type="checkbox"/> Article 24	Tiffany Toukatly

AGREEMENT TO CONDITIONS

Failure to comply with the conditions of this permit may result in denial of future permits and may be considered a violation of New York State law. This permit may be revoked at any time.

I have read and fully understand the enclosed conditions of this permit.

Permittee: _____ Date: _____



Department of
Environmental
Conservation

CONDITIONS OF PERMIT

STANDARD CONDITIONS

1. In executing this permit you and/or your agent(s) must obey all Federal, State and local laws, regulations, and ordinances governing such actions (e.g., off-set 330 trigger, firearms discharge, trap-setting, and trap-tagging requirements) and obtain any additional permits or authorizations as required.
2. This permit does not authorize you and/or your agent(s) to trespass. This permit is valid for the location owned by the person the permit is issued to or in their right-of-way only.
3. You and/or your agent(s) must possess on your person a copy of this permit while executing this permit.
4. Agents setting traps must have a NYS Trapping License, Trapper Education Certificate, or a Nuisance Wildlife Control Operator License. Agents discharging a firearm must have a NYS Hunting License, Hunter Education Certificate or certificate of safe firearms training. Landowners are exempt from these conditions on their own land.
5. When removing a beaver dam, water levels above and below must be equalized by slow and partial breaching before the entire dam is removed.
6. All incidental captures of river otter in a closed area or outside of an open season must immediately be reported to the Regional Wildlife Office for further direction.
7. This permit does not allow for the grading, filling, excavation, or permanent alteration of any NYS-regulated wetland or protected stream unless authorized.
8. This permit may be renewed or revoked at any time by the Department.
9. You and/or your agent(s) may keep/sell beaver pelts from the start of the legal trapping season until May 15. Outside of these dates beaver must be buried.

REMARKS

1. DEC encourages the trapping of beavers during the fall/winter beaver trapping season.



Department of
Environmental
Conservation

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, Bureau of Wildlife, Region 7
1285 Fisher Ave., Cortland, NY 13045
P: (607) 753-3095 ext. 247
www.dec.ny.gov

REG YEAR PERMIT #

7	2016	1477
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NUISANCE BEAVER PERMIT

Permit to kill or harass destructive wildlife pursuant to Environmental Conservation Law 11-0521

ISSUED TO:

David Yaman 839 NYS Route 13 Cortland, NY 13045	Cortland Commerce Center Home: (607) 756-5872
---	--

LOCATION OF PROBLEM:

County: Cortland	Street/Loc: 839 NYS Route 13
Town: Cortlandville	
WMU: 7M	
UTM E: N:	TaxID: 95.00-10-01.100
	WaterCourse:

NATURE OF COMPLAINT:

Commercial

ACTIONS AUTHORIZED:

Kill by shooting	Kill by trapping
Disturb/remove beaver dam	Set traps within 15 feet of beaver dam
Set traps within 15 feet of beaver lodge	

Issue Date: 6/29/2016	Other Permits Issued Pursuant to General	Issuing Agent:
Expiration Date: 12/31/2016	Permit GP-0-06-001: <input type="checkbox"/> Article 15 <input type="checkbox"/> Article 24	Tiffany Toukatly

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I have read and fully understand the enclosed conditions of this permit.

Permittee: _____

Date: _____

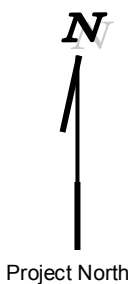
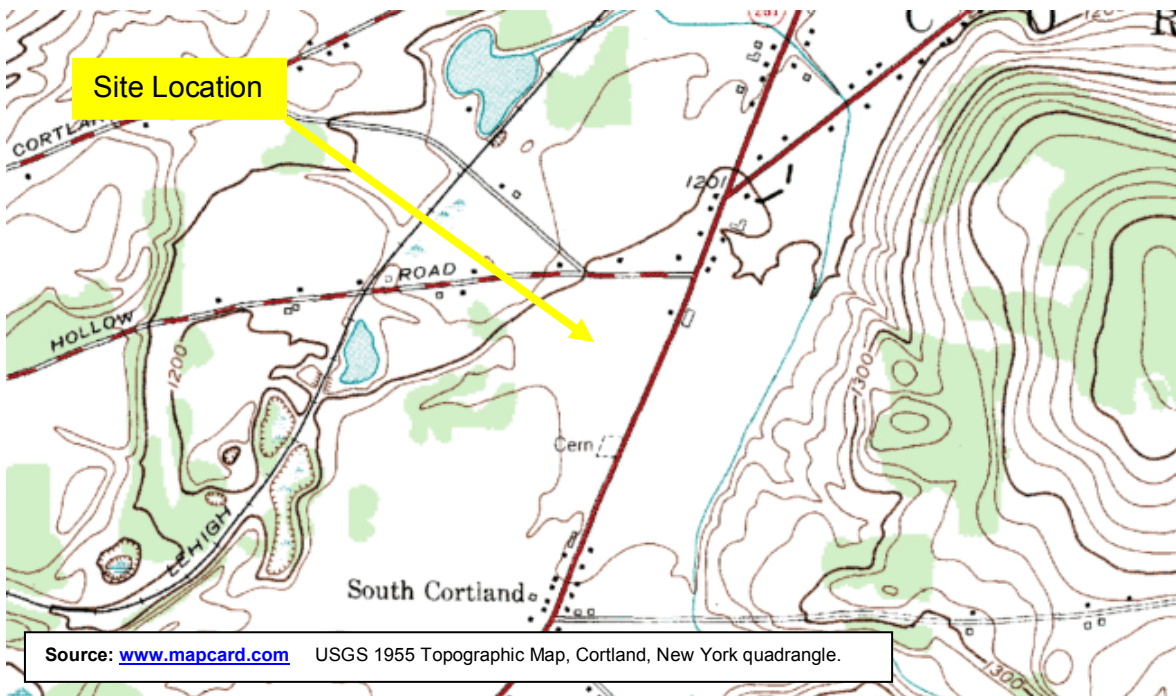
7/1/16



Department of
Environmental
Conservation

APPENDIX B

DRAWINGS

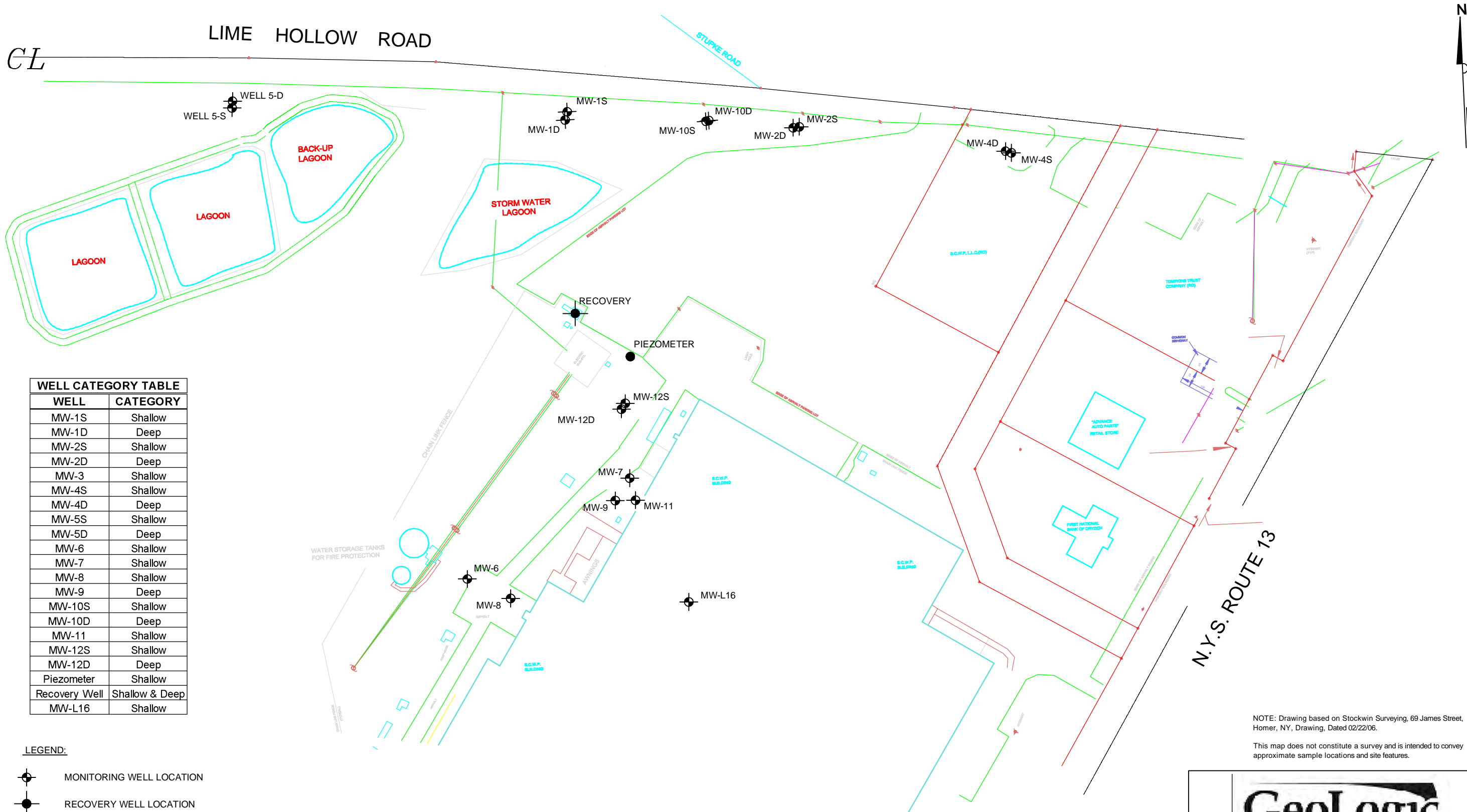


GeoLogic

GeoLogic NY, Inc.

**SITE LOCATION PLAN
FORMER SCM-CORTLANDVILLE (SITE #: 712006)
839 NYS ROUTE 13
CORTLANDVILLE, NEW YORK**

DRAWN BY:	SCALE:	PROJECT NO:
CTG	Not To Scale	210087
REVIEWED BY:	DATE:	DRAWING NO:
FCE	JAN. 2017	1



WELL CATEGORY TABLE	
WELL	CATEGORY
MW-1S	Shallow
MW-1D	Deep
MW-2S	Shallow
MW-2D	Deep
MW-3	Shallow
MW-4S	Shallow
MW-4D	Deep
MW-5S	Shallow
MW-5D	Deep
MW-6	Shallow
MW-7	Shallow
MW-8	Shallow
MW-9	Deep
MW-10S	Shallow
MW-10D	Deep
MW-11	Shallow
MW-12S	Shallow
MW-12D	Deep
Piezometer	Shallow
Recovery Well	Shallow & Deep
MW-L16	Shallow

NOTE: Drawing based on Stockwin Surveying, 69 James Street, Homer, NY, Drawing, Dated 02/22/06.

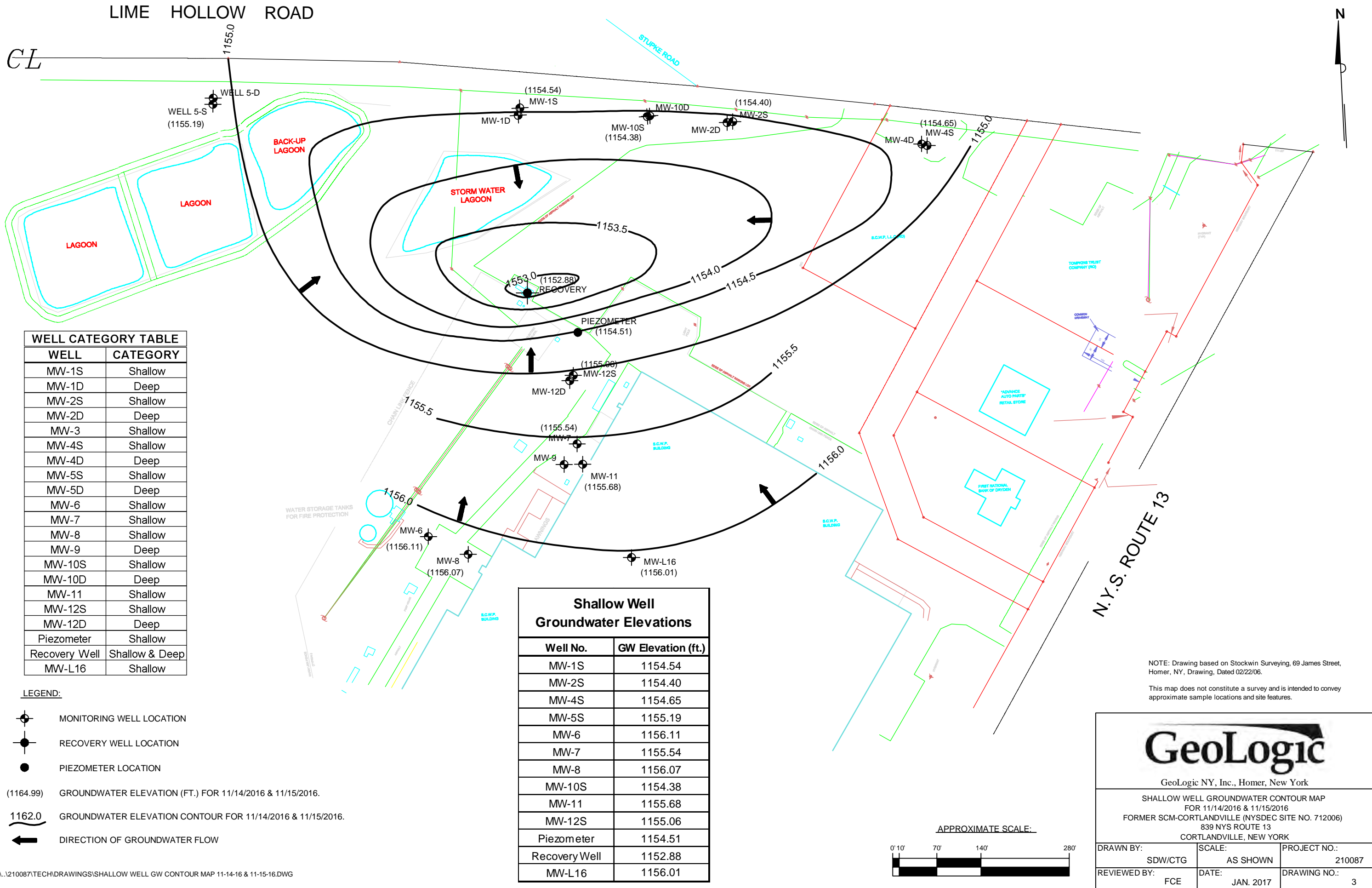
This map does not constitute a survey and is intended to convey approximate sample locations and site features.

GeoLogic

GeoLogic NY, Inc., Homer, New York

SAMPLE LOCATION PLAN
FORMER SCM-CORTLANDVILLE (NYSDEC SITE NO. 712006)
839 NYS ROUTE 13
CORTLANDVILLE, NEW YORK

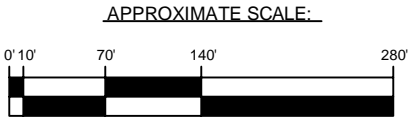
DRAWN BY: SDW/CTG	SCALE: AS SHOWN	PROJECT NO.: 210087
REVIEWED BY: FCE	DATE: JAN. 2017	DRAWING NO.: 2



WELL CATEGORY TABLE	
WELL	CATEGORY
MW-1S	Shallow
MW-1D	Deep
MW-2S	Shallow
MW-2D	Deep
MW-3	Shallow
MW-4S	Shallow
MW-4D	Deep
MW-5S	Shallow
MW-5D	Deep
MW-6	Shallow
MW-7	Shallow
MW-8	Shallow
MW-9	Deep
MW-10S	Shallow
MW-10D	Deep
MW-11	Shallow
MW-12S	Shallow
MW-12D	Deep
Piezometer	Shallow
Recovery Well	Shallow & Deep
MW-L16	Shallow

Shallow Well Groundwater Elevations	
Well No.	GW Elevation (ft.)
MW-1S	1154.54
MW-2S	1154.40
MW-4S	1154.65
MW-5S	1155.19
MW-6	1156.11
MW-7	1155.54
MW-8	1156.07
MW-10S	1154.38
MW-11	1155.68
MW-12S	1155.06
Piezometer	1154.51
Recovery Well	1152.88
MW-L16	1156.01

- LEGEND:**
- MONITORING WELL LOCATION
 - RECOVERY WELL LOCATION
 - PIEZOMETER LOCATION
 - (1164.99) GROUNDWATER ELEVATION (FT.) FOR 11/14/2016 & 11/15/2016.
 - 1162.0 GROUNDWATER ELEVATION CONTOUR FOR 11/14/2016 & 11/15/2016.
 - DIRECTION OF GROUNDWATER FLOW



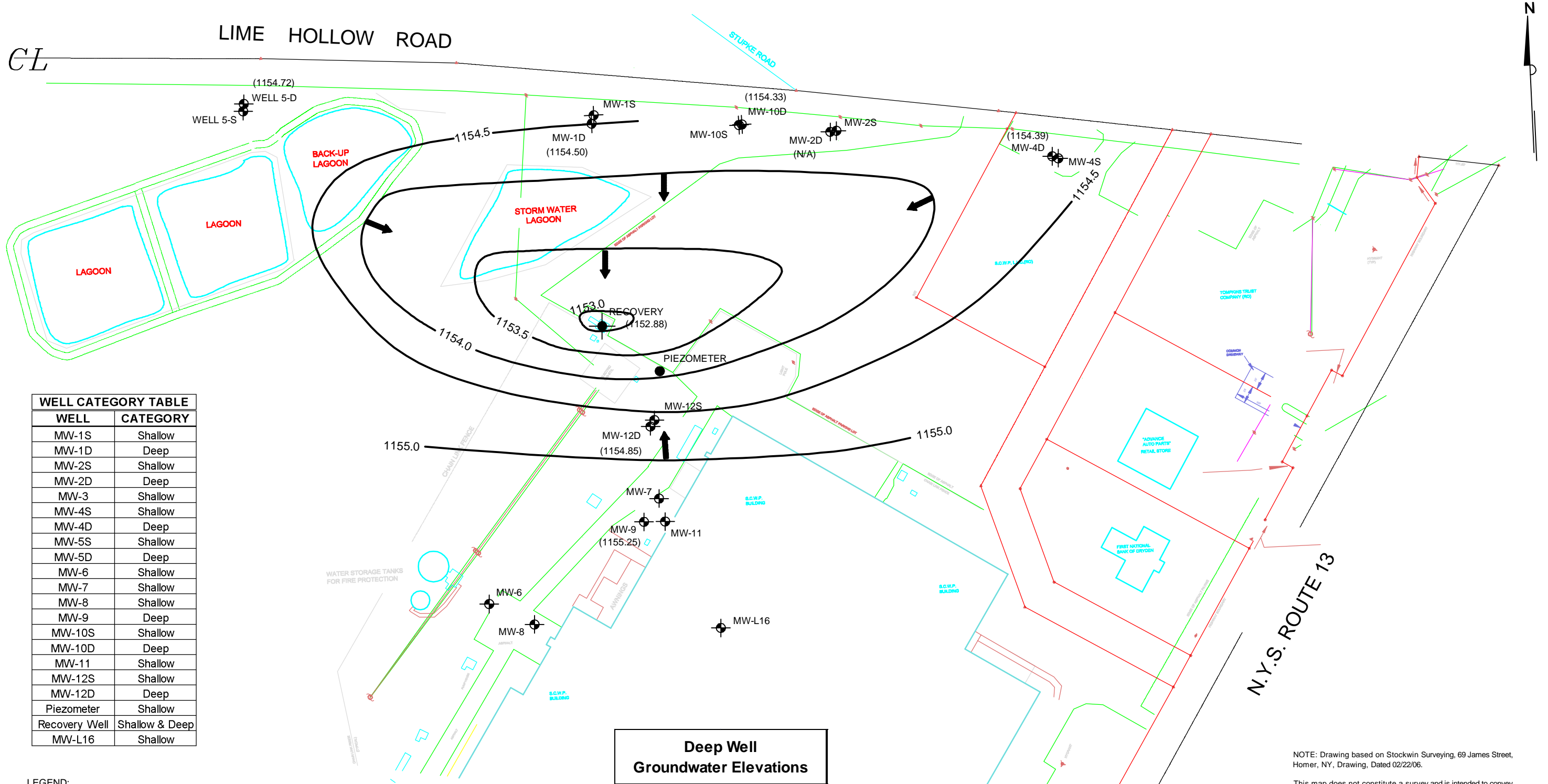
NOTE: Drawing based on Stockwin Surveying, 69 James Street, Homer, NY, Drawing, Dated 02/22/06.

This map does not constitute a survey and is intended to convey approximate sample locations and site features.

GeoLogic NY, Inc., Homer, New York

SHALLOW WELL GROUNDWATER CONTOUR MAP
FOR 11/14/2016 & 11/15/2016
FORMER SCM-CORTLANDVILLE (NYSDEC SITE NO. 712006)
839 NYS ROUTE 13
CORTLANDVILLE, NEW YORK

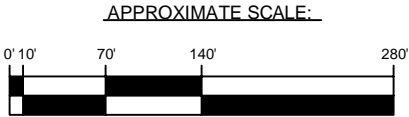
DRAWN BY:	SCALE:	PROJECT NO.:
SDW/CTG	AS SHOWN	210087
REVIEWED BY:	DATE:	DRAWING NO.:
FCE	JAN. 2017	3



WELL CATEGORY TABLE	
WELL	CATEGORY
MW-1S	Shallow
MW-1D	Deep
MW-2S	Shallow
MW-2D	Deep
MW-3	Shallow
MW-4S	Shallow
MW-4D	Deep
MW-5S	Shallow
MW-5D	Deep
MW-6	Shallow
MW-7	Shallow
MW-8	Shallow
MW-9	Deep
MW-10S	Shallow
MW-10D	Deep
MW-11	Shallow
MW-12S	Shallow
MW-12D	Deep
Piezometer	Shallow
Recovery Well	Shallow & Deep
MW-L16	Shallow

Deep Well Groundwater Elevations	
Well No.	GW Elevation (ft.)
MW-1D	1154.50
MW-2D	-
MW-4D	1154.39
MW-5D	1154.72
MW-9	1155.25
MW-10D	1154.33
MW-12D	1154.85
Recovery Well	1152.88

- LEGEND:
- MONITORING WELL LOCATION
 - RECOVERY WELL LOCATION
 - PIEZOMETER LOCATION
 - (1164.99) GROUNDWATER ELEVATION (FT.) FOR 11/14/2016 & 11/15/2016.
 - 1162.0 GROUNDWATER ELEVATION CONTOUR FOR 11/14/2016 & 11/15/2016.
 - DIRECTION OF GROUNDWATER FLOW



NOTE: Drawing based on Stockwin Surveying, 69 James Street, Homer, NY, Drawing, Dated 02/22/06.

This map does not constitute a survey and is intended to convey approximate sample locations and site features.

GeoLogic NY, Inc., Homer, New York

DEEP WELL GROUNDWATER CONTOUR MAP
FOR 11/14/16 & 11/15/16
FORMER SCM-CORTLANDVILLE (NYSDEC SITE NO. 712006)
839 NYS ROUTE 13
CORTLANDVILLE, NEW YORK

DRAWN BY: SDW/CTG	SCALE: AS SHOWN	PROJECT NO.: 210087
REVIEWED BY: FCE	DATE: JAN. 2017	DRAWING NO.: 4

APPENDIX C

TABLES

TABLE 1.**Field Observations: 2016 Annual Groundwater Sampling Event**

Field Observations: Annual Groundwater Sampling Event: November 15 and 16, 2016								
Well#	CATEGORY	**TOP PVC ELEVATION	TOP PVC WATER LEVEL (FT)	GW ELEVATION	DEPTH OF WELL (FT)	VOLUME (GAL.) of WATER in WELL	APPROX. VOLUME PURGED (GAL.)	Notes
MW-1S	Shallow -Perimeter	1185.75	31.21	1154.54	39.50	1.3	4	Light brown, little sand.
MW-1D	Deep - Perimeter	1185.85	31.35	1154.50	70.50	6.3	23	Clear.
MW-2S	Shallow -Perimeter	1210.91	56.51	1154.40	70.20	2.2	7	Clear.
MW-2D	Deep - Perimeter	N/A	-	-	104.00	-	-	No sample, well damaged.
MW-4S	Shallow -Perimeter	1209.72	55.07	1154.65	73.79	3.0	10	Light brown.
MW-4D	Deep - Perimeter	1210.14	55.75	1154.39	104.23	7.8	25	Clear.
MW-5S	Shallow -Perimeter	1178.46	23.27	1155.19	40.00	2.7	8.25	Clear.
MW-5D	Deep - Perimeter	1178.86	24.14	1154.72	71.88	7.6	25	Clear.
MW-6	Shallow - Interior	1211.42	55.31	1156.11	56.50	0.2	1	Light brown.
MW-7	Shallow - Interior	1211.56	56.02	1155.54	58.75	0.4	1.5	Brown, turbid.
MW-8	Shallow - Interior	1212.76	56.69	1156.07	61.42	0.8	2.5	Light brown.
MW-9	Deep - Interior	1212.94	57.69	1155.25	100.46	6.8	23	Clear.
MW-10S	Shallow -Perimeter	1207.23	52.85	1154.38	62.00	1.5	4.75	Brown.
MW-10D	Deep - Perimeter	1207.52	53.19	1154.33	99.00	7.3	25	Clear.
MW-11	Shallow - Interior	1214.44	58.76	1155.68	59.50	0.1	0.5	Dark brown, turbid & sheen.
MW-12S	Shallow - Interior	1212.94	57.88	1155.06	62.00	0.7	2	Brown, turbid.
MW-12D	Deep - Interior	1212.80	57.95	1154.85	89.00	5.0	15	Clear.
MW-L16	Shallow	1212.99	56.98	1156.01	60.00	0.5	1.75	Brown, turbid.
Piezometer	Shallow	1212.59	58.08	1154.51		N/A	N/A	No sample, water level only.
Recovery Well	Shallow & Deep	1205.62	52.74	1152.88	94.00	N/A	N/A	No sample, water level only.
Notes: ** Top of PVC elevations were determined from survey by Jim Stockwin, LS, 2006. N/A = Not applicable.								

Table 2: Page 1 of 2
Summary of Groundwater Analytical Results

		Feb-90	Aug-90	Nov-90	Feb-91	May-91	Aug-91	Nov-91	Feb-92	May-92	Aug-92	Nov-92	Feb-93	May-93	Aug-93	Nov-93	Feb-94	Jun-94	Sep-94	Nov-94	Feb-95	May-95	Nov-95	May-96	Nov-96	May-97	Nov-97	May-98	Nov-98	Aug-99	Jan-00	Nov-01	Nov-02	Jun-03	Nov-03	Nov-04	Dec-05	Sep-06	Nov-06	May-07	Nov-07	Nov-08	Nov-09	Dec-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Nov-16																																																																																																																																																																																																																																																																																																																																																				
MW-1S	TCE			<1	47	41	25	17	19	12	9	13	15	2	11	26	3	13	7	19	13	9	11	8	11	5	8	10	11	15	8	7	5	6	8			6	11	6	7	4	3	2	5	4	4.20	5.40	5.46	4.69	2.96	5.37	10.10																																																																																																																																																																																																																																																																																																																																																	
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	Total VOC's			<1	47	41	25	21		23	13	9	15	17	2	13	34	3	13	7	22		15	9	13	8	11	5	8	10	11	16	8	7	5	6	8			6	11	6	7	4	3	2	5	4	4.20	5.40	5.59	4.82 J	2.96	5.37	10.37 J																																																																																																																																																																																																																																																																																																																																															
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MW-1D	TCE			<1	32	25	18	19	12	13	13	14	13	12	16	12	13	9	11	12	12	13	7	10	7	8	7	7	8	3	3	3	1			2	3	5	NS	3		NS	4	5	4	2.70	4.40	5.65	3.49	3.78	4.57	4.53																																																																																																																																																																																																																																																																																																																																																		
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MW-2S	TCE		4	5	6	8	6	8	10	5	7	5	5	5	5	7	7	4	4	4	3	4	4	4	NA	4	NA	3	NA	4	NA	4	2	2	2	2	2	2	2	2	3	2	2	2	2	1.70	1.80	1.66	1.48	1.27	1.90	1.88																																																																																																																																																																																																																																																																																																																																																		
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MW-3	TCE		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	4	<1	<1	<1	<1	NA	19	NA	2	<1	8	NA	<1	<1	<1	<1			2	1	<1	NS	2		NS	<1	NS	NS	NS	NS	NS	NS	NS	NS	NS																																																																																																																																																																																																																																																																																																																																																		
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	Total VOC's		<1	<1	<1	<1	<1	<1	<1	<1	<1	2	1	<1	<1	<1	<1	4	<1	<1	<1	<1	NA	33	NA	2	<1	12	NA	<1	<1	<1	<1			3	1	2		5		<1																																																																																																																																																																																																																																																																																																																																																												
	Total VOC Yearly Ave.					0			0			1											1		0		33		1		12	<1	<1	<1	<1			3	1	2		5																																																																																																																																																																																																																																																																																																																																																												
MW-4S	TCE		<1	<1	2	<1	1	2	1	<1	1	1	1	<1	1	<1	<1	NA	<1	NA	<1	NA	<1	NA	<1	NA	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1																																																																																																																																																																																																																																																																																																																																														
	TCE Yearly Ave.				1			1	1			1	1		1		1	<1	NA	<1	NA	<1	NA	<1	NA	<1	NA	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1																																																																																																																																																																																																																																																																																																																																										
	Total VOC's		<1	<1	2	<1	1	2	1	<1	1	1	1	<1	1	<1	1	<1	NA	<1	<1	<1	<1	NA	<1	NA	<1	NA	<1	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<

Table 2: Page 2 of 2
Summary of Groundwater Analytical Results

		May-96	Nov-96	May-97	Nov-97	May-98	Nov-98	Aug-99	Nov-00	Nov-01	Nov-02	Jun-03	Nov-03	Nov-04	Dec-05	Sep-06	Nov-06	May-07	Nov-07	Nov-08	Nov-09	Dec-10	Nov-11	Nov-12	Nov-13	Nov-14	Nov-15	Nov-16	
MW-BE1																													
	TCE							<1	NA	NA	NA	<1	NA	NA	NA														
	TCE Yearly Ave.							<1	NA	NA	NA	<1	NA	NA	NA														
	Total VOC's							<1	NA	NA	NA	<1	NA	NA	NA														
	Total VOC Yearly Ave.							<1	NA	NA	NA	<1	NA	NA	NA														
MW-BE2																													
	TCE							<1	NA	NA	NA	<1	NA	NA	NA														
	TCE Yearly Ave.							<1	NA	NA	NA	<1	NA	NA	NA														
	Total VOC's							<1	NA	NA	NA	1.2	NA	NA	NA														
	Total VOC Yearly Ave.							<1	NA	NA	NA	1.2	NA	NA	NA														
DEC-23																													
	TCE															<1		<1											
DEC-24																													
	Total VOC's															<1		<1											
DEC-25																													
	TCE															NS		<1											
DEC-26																													
	Total VOC's															NS		<1											
DEC-27																													
	TCE															9.9		NS											
DEC-28																													
	Total VOC's															9.9		NS											
DEC-29																													
	TCE															4.7		NS											
DEC-30																													
	Total VOC's															4.7		NS											
DEC-31																													
	TCE															3.5		NS											
DEC-32																													
	Total VOC's															3.5		NS											
DEC-33																													
	TCE															2.4		NS											
DEC-34																													
	Total VOC's															2.4		NS											
DEC-35																													
	TCE															1.4		1.2											
DEC-36																													
	Total VOC's															1.4		1.2											
Notes:																													
NS = Not Sampled.																													
1. Units are µg/L.																													
2. Well L16 was constructed inside the building on 12/5/08.																													
3. All data prior to 2010 provided to GeoLogic NY, Inc. by Buck Engineering, LLC.																													

Table No. 3
Monthly Analytical Results May 2001- December 2016
Former SCM - Cortlandville
Site No. 712006

Sampling Date	Compound	Tower Influent	Tower Discharge	Reg Limit	Outfall at Cascade
5/17/2001	Trichloroethene	19.0	7.6	5	3.5
	Total VOC's	19.0	7.6		3.5
6/4/2001	Trichloroethene	14.0	5.6	5	2.3
	Total VOC's	14.0	5.6		2.3
7/10/2001	Trichloroethene	9.7	3.5	5	1.8
	Total VOC's	9.7	3.5		1.8
8/2/2001	Trichloroethene	13.0	5.4	5	3.0
	Total VOC's	13.0	5.4		3.0
9/7/2001	Trichloroethene	8.3	1.7	5	1.4
	Total VOC's	8.3	1.7		1.4
10/9/2001	Trichloroethene	8.0	ND<1	5	ND<1
	Total VOC's	8.0	ND<1		ND<1
11/13/2001	Trichloroethene	6.0	1.9	5	ND<1
	Total VOC's	6.0	1.9		ND<1
12/13/2001	Trichloroethene	5.7	2.6	5	1.2
	Total VOC's	5.7	2.6		1.2
1/9/2002	Trichloroethene	6.6	3.0	5	1.3
	Total VOC's	6.6	3.0		1.3
2/15/2002	Trichloroethene	9.4	2.6	5	1.6
	Total VOC's	10.6	2.6		1.6
3/8/2002	Trichloroethene	9.9	5.7	5	2.1
	Total VOC's	9.9	5.7		2.1
4/2/2002	Trichloroethene	11.0	4.4	5	2.2
	Total VOC's	11.0	4.4		2.2
5/1/2002	Trichloroethene	13.0	6.7	5	3.4
	Total VOC's	14.1	6.7		3.4
6/24/2002	Trichloroethene	14.0	4.7	5	3.4
	Total VOC's	14.0	4.7		3.4
7/9/2002	Trichloroethene	4.3	1.6	5	ND<1
	Total VOC's	4.3	1.6		1.3
8/12/2002	Trichloroethene	16.0	5.9	5	3.1
	Total VOC's	16.0	5.9		3.1
9/9/2002	Trichloroethene	12.0	3.9	5	1.8
	Total VOC's	12.0	3.9		1.8
10/3/2002	Trichloroethene	11.0	4.1	5	1.3
	Total VOC's	11.0	4.1		1.3
11/14/2002	Trichloroethene	10.0	4.3	5	2.0
	Total VOC's	10.0	4.3		2.0
12/31/2002	Trichloroethene	12.0	5.1	5	2.0
	Total VOC's	12.0	5.1		2.0

Table No. 3
Monthly Analytical Results May 2001- December 2016
Former SCM - Cortlandville
Site No. 712006

Sampling Date	Compound	Tower Influent	Tower Discharge	Reg Limit	Outfall at Cascade
1/13/2003	Trichloroethene	13.0	5.8	5	2.1
	Total VOC's	13.0	5.8		2.1
2/19/2003	Trichloroethene	14.0	5.1	5	2.1
	Total VOC's	14.0	5.1		2.1
3/12/2003	Trichloroethene	14.0	5.9	5	2.2
	Total VOC's	14.0	5.9		2.2
4/9/2003	Trichloroethene	18.0	8.0	5	3.1
	Total VOC's	18.0	8.0		3.1
5/2/2003	Trichloroethene	16.0	5.8	5	3.0
	Total VOC's	16.0	5.8		3.0
6/20/2003	Trichloroethene	18.0	7.2	5	3.4
	Total VOC's	18.0	7.2		3.4
7/1/2003	Trichloroethene	16.0	5.8	5	2.4
	Total VOC's	16.0	5.8		2.4
8/14/2003	Trichloroethene	14.0	4.7	5	2.4
	Total VOC's	14.0	4.7		2.4
9/11/2003	Trichloroethene	9.6	3.5	5	1.8
	Total VOC's	9.6	3.5		1.8
10/2/2003	Trichloroethene	12.0	5.5	5	2.4
	Total VOC's	12.0	5.5		2.4
11/24/2003	Trichloroethene	10.0	1.1	5	1.4
	Total VOC's	10.0	1.1		1.4
12/3/2003	Trichloroethene	13.0	6.5	5	3.0
	Total VOC's	13.0	6.5		3.0
1/5/2004	Trichloroethene	12.0	6.4	5	3.0
	Total VOC's	12.0	6.4		3.0
2/2/2004	Trichloroethene	14.0	7.0	5	3.1
	Total VOC's	14.0	7.0		3.1
3/1/2004	Trichloroethene	13.0	4.8	5	2.0
	Total VOC's	13.0	4.8		2.0
4/2/2004	Trichloroethene	16.0	6.0	5	2.7
	Total VOC's	16.0	6.0		2.7
5/6/2004	Trichloroethene	14.0	5.3	5	2.5
	Total VOC's	14.0	5.3		2.5
6/3/2004	Trichloroethene	12.0	4.9	5	2.5
	Total VOC's	12.0	4.9		2.5
7/1/2004	Trichloroethene	13.0	4.6	5	2.0
	Total VOC's	13.0	4.6		2.0
8/17/2004	Trichloroethene	12.0	4.7	5	1.9
	Total VOC's	12.0	4.7		1.9

Table No. 3
Monthly Analytical Results May 2001- December 2016
Former SCM - Cortlandville
Site No. 712006

Sampling Date	Compound	Tower Influent	Tower Discharge	Reg Limit	Outfall at Cascade
9/7/2004	Trichloroethene	11.0	3.9	5	1.5
	Total VOC's	11.0	3.9		1.5
10/18/2004	Trichloroethene	12.0	2.2	5	2.1
	Total VOC's	12.0	2.2		2.1
11/18/2004	Trichloroethene	13.0	4.6	5	2.2
	Total VOC's	13.0	4.6		2.2
12/8/2004	Trichloroethene	11.0	2.8	5	1.3
	Total VOC's	11.0	2.8		1.3
1/11/2005	Trichloroethene	13.0	6.5	5	2.7
	Total VOC's	13.0	6.5		2.7
2/8/2005	Trichloroethene	9.0	5.0	5	2.0
	Total VOC's	9.0	5.0		2.0
3/3/2005	Trichloroethene	13.0	3.3	5	1.6
	Total VOC's	13.0	3.3		1.6
4/4/2005	Trichloroethene	15.0	6.2	5	2.2
	Total VOC's	15.0	6.2		2.2
5/5/2005	Trichloroethene	11.0	4.5	5	1.9
	Total VOC's	11.0	4.5		1.9
6/8/2005	Trichloroethene	5.6	2.4	5	1.0
	Total VOC's	5.6	2.4		1.0
7/11/2005	Trichloroethene	12.0	4.3	5	2.0
	Total VOC's	12.0	4.3		2.0
8/1/2005	Trichloroethene	9.9	3.5	5	1.7
	Total VOC's	9.9	3.5		1.7
9/6/2005	Trichloroethene	7.2	2.8	5	1.1
	Total VOC's	7.2	2.8		1.1
10/14/2005	Trichloroethene	6.0	2.3	5	ND<1
	Total VOC's	6.0	2.3		ND<1
11/18/2005	Trichloroethene	7.1	3.2	5	1.2
	Total VOC's	7.1	3.2		1.2
12/5/2005	Trichloroethene	7.4	3.1	5	1.2
	Total VOC's	7.4	3.1		1.2
1/3/2006	Trichloroethene	8.9	4.0	5	1.5
	Total VOC's	8.9	4.0		1.5
2/2/2006	Trichloroethene	9.5	4.0	5	1.7
	Total VOC's	9.5	4.0		1.7
3/20/2006	Trichloroethene	9.2	1.6	5	1.1
	Total VOC's	9.2	1.6		1.1
4/19/2006	Trichloroethene	10.0	4.0	5	1.6
	Total VOC's	10.0	4.0		1.6
5/4/2006	Trichloroethene	10.0	3.9	5	1.7
	Total VOC's	10.0	3.9		1.7

Table No. 3
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Sampling Date	Compound	Tower Influent	Tower Discharge	Reg Limit	Outfall at Cascade
6/2/2006	Trichloroethene	9.6	3.6	5	1.7
	Total VOC's	9.6	3.6		1.7
7/6/2006	Trichloroethene	10.0	4.0	5	1.8
	Total VOC's	10.0	4.0		1.8
8/4/2006	Trichloroethene	10.0	4.2	5	1.7
	Total VOC's	10.0	4.2		1.7
9/5/2006	Trichloroethene	11.0	4.4	5	1.8
	Total VOC's	11.0	4.4		1.8
10/5/2006	Trichloroethene	11.0	4.4	5	1.8
	Total VOC's	11.0	4.4		1.8
11/20/2006	Trichloroethene	10.0	4.2	5	1.9
	Total VOC's	10.0	4.2		1.9
12/6/2006	Trichloroethene	11.0	2.9	5	1.2
	Total VOC's	11.0	2.9		1.2
1/8/2007	Trichloroethene	10.0	4.4	5	1.8
	Total VOC's	10.0	4.4		1.8
2/6/2007	Trichloroethene	12.0	3.1	5	ND<1
	Total VOC's	12.0	3.1		ND<1
3/21/2007	Trichloroethene	11.0	4.6	5	1.8
	Total VOC's	11.0	4.6		1.8
4/5/2007	Trichloroethene	10.0	4.8	5	1.6
	Total VOC's	10.0	4.8		1.6
5/18/2007	Trichloroethene	11.0	4.5	5	2.0
	Total VOC's	11.0	4.5		2.0
6/13/2007	Trichloroethene	12.0	4.3	5	2.0
	Total VOC's	12.0	4.3		2.0
7/9/2007	Trichloroethene	10.0	4.1	5	1.4
	Total VOC's	10.0	4.1		1.4
8/8/2007	Trichloroethene	9.2	3.4	5	1.4
	Total VOC's	9.2	3.4		1.4
9/7/2007	Trichloroethene	6.2	2.4	5	1.0
	Total VOC's	6.2	2.4		1.0
10/4/2007	Trichloroethene	5.9	2.2	5	1.2
	Total VOC's	5.9	2.2		1.2
11/26/2007	Trichloroethene	6.3	2.9	5	1.2
	Total VOC's	6.3	2.9		1.2
12/26/2007	Trichloroethene	10.0	4.8	5	1.9
	Total VOC's	10.0	4.8		3.0

Table No. 3
Monthly Analytical Results May 2001- December 2016
Former SCM - Cortlandville
Site No. 712006

Sampling Date	Compound	Tower Influent	Tower Discharge	Reg Limit	Outfall at Cascade
1/11/2008	Trichloroethene	11.0	5.0	5	2.0
	Total VOC's	11.0	5.0		2.0
2/15/2008	Trichloroethene	8.9	3.5	5	1.3
	Total VOC's	8.9	3.5		1.3
3/24/2008	Trichloroethene	11.0	4.4	5	1.9
	Total VOC's	11.0	4.4		1.9
4/16/2008	Trichloroethene	9.6	3.9	5	1.7
	Total VOC's	9.6	3.9		1.7
5/21/2008	Trichloroethene	10.0	4.8	5	2.0
	Total VOC's	10.0	4.8		2.0
6/26/2008	Trichloroethene	8.5	3.4	5	1.7
	Total VOC's	8.5	3.4		1.7
7/22/2008	Trichloroethene	8.1	3.5	5	1.6
	Total VOC's	8.1	3.5		1.6
8/21/2008	Trichloroethene	6.0	3.0	5	1.3
	Total VOC's	6.0	3.0		1.3
9/18/2008	Trichloroethene	5.9	2.7	5	1.0
	Total VOC's	5.9	2.7		1.0
10/23/2008	Trichloroethene	3.5	2.2	5	<1
	Total VOC's	3.5	2.2		<1
11/26/2008	Trichloroethene	4.0	2.2	5	1.0
	Total VOC's	4.0	2.2		1.0
12/16/2008	Trichloroethene	4.2	2.2	5	1.1
	Total VOC's	4.2	2.2		1.1
1/20/2009	Trichloroethene	6.2	3.5	5	1.5
	Total VOC's	6.2	3.5		1.5
2/23/2009	Trichloroethene	5.0	2.1	5	<1
	Total VOC's	5.0	2.1		<1
3/17/2009	Trichloroethene	5.7	3.6	5	1.5
	Total VOC's	5.7	3.6		1.5
4/16/2009	Trichloroethene	6.0	3.5	5	1.8
	Total VOC's	6.0	3.5		1.8
5/19/2009	Trichloroethene	6.4	3.5	5	1.6
	Total VOC's	6.4	3.5		1.6
6/18/2009	Trichloroethene	6.2	2.8	5	1.6
	Total VOC's	6.2	2.8		1.6
7/14/2009	Trichloroethene	4.3	2.7	5	1.4
	Total VOC's	4.3	2.7		1.4
8/31/2009	Trichloroethene	3.7	1.9	5	1.0
	Total VOC's	3.7	1.9		1.0

Table No. 3
Monthly Analytical Results May 2001- December 2016
Former SCM - Cortlandville
Site No. 712006

Sampling Date	Compound	Tower Influent	Tower Discharge	Reg Limit	Outfall at Cascade
9/24/2009	Trichloroethene	3.7	2.0	5	1.0
	Total VOC's	3.7	2.0		1.0
10/20/2009	Trichloroethene	3.9	2.0	5	1.0
	Total VOC's	3.9	2.0		1.0
11/30/2009	Trichloroethene	3.2	2.2	5	1.0
	Total VOC's	3.2	2.2		1.0
12/29/2009	Trichloroethene	5.1	1.7	5	<1
	Total VOC's	5.1	1.7		<1
1/28/2010	Trichloroethene	5.9	2.7	5	1.3
	Total VOC's	5.9	2.7		1.3
2/24/2010	Trichloroethene	6.9	2.9	5	1.4
	Total VOC's	6.9	2.9		1.4
3/30/2010	Trichloroethene	8.0	3.7	5	1.7
	Total VOC's	8.0	3.7		1.7
4/29/2010	Trichloroethene	8.6	3.5	5	1.7
	Total VOC's	8.6	3.5		1.7
5/27/2010	Trichloroethene	8.5	3.1	5	1.8
	Total VOC's	8.5	3.1		1.8
6/30/2010	Trichloroethene	8.0	3.1	5	1.6
	Total VOC's	8.0	3.1		1.6
7/29/2010	Trichloroethene	6.8	2.5	5	1.2
	Total VOC's	6.8	2.5		1.2
8/31/2010	Trichloroethene	4.6	2.0	5	1.1
	Total VOC's	4.6	2.0		1.1
9/29/2010	Trichloroethene	4.9	1.9	5	1.0
	Total VOC's	4.9	1.9		1.0
10/28/2010	Trichloroethene	5.4	2.2	5	1.0
	Total VOC's	5.4	2.2		1.0
11/29/2010	Trichloroethene	6.4	2.5	5	1.2
	Total VOC's	6.4	2.5		1.2
12/31/2010	Trichloroethene	9.9	3.7	5	1.3
	Total VOC's	9.9	3.7		1.3
1/24/2011	Trichloroethene	9.6	5.1	5	2.3
	Total VOC's	9.6	5.1		2.3
2/25/2011	Trichloroethene	8.0	5.3	5	2.0
	Total VOC's	8.0	5.3		2.0
3/31/2011	Trichloroethene	11.0	4.4	5	2.0
	Total VOC's	11.0	4.4		2.0
4/28/2011	Trichloroethene	11.0	4.1	5	1.9
	Total VOC's	11.0	4.1		1.9

Table No. 3
Monthly Analytical Results May 2001- December 2016
Former SCM - Cortlandville
Site No. 712006

Sampling Date	Compound	Tower Influent	Tower Discharge	Reg Limit	Outfall at Cascade
5/31/2011	Trichloroethene	14.0	4.5	5	2.3
	Total VOC's	14.0	4.5		2.3
6/29/2011	Trichloroethene	12.0	4.5	5	2.2
	Total VOC's	12.0	4.5		2.2
7/29/2011	Trichloroethene	9.9	3.4	5	1.8
	Total VOC's	9.9	3.4		1.8
8/19/2011	Trichloroethene	9.8	3.5	5	1.8
	Total VOC's	9.8	3.5		1.8
9/27/2011	Trichloroethene	8.9	3.2	5	1.5
	Total VOC's	8.9	3.2		1.5
10/26/2011	Trichloroethene	9.7	3.9	5	1.7
	Total VOC's	9.7	3.9		1.7
11/22/2011	Trichloroethene	8.8	3.8	5	1.5
	Total VOC's	8.8	3.8		1.5
12/27/2011	Trichloroethene	10.4	4.3	5	1.7
	Total VOC's	10.7	4.5		1.7
1/27/2012	Trichloroethene	10.3	4.1	5	1.6
	Total VOC's	10.5	4.3		1.6
2/24/2012	Trichloroethene	12.0	5.0	5	2.1
	Total VOC's	12.3	5.2		2.1
3/27/2012	Trichloroethene	11.9	4.7	5	2.0
	Total VOC's	11.9	4.7		2.6
4/23/2012	Trichloroethene	10.2	4.2	5	1.9
	Total VOC's	10.4	4.3		1.9
5/31/2012	Trichloroethene	9.6	3.6	5	1.8
	Total VOC's	9.7	3.7		1.8
6/25/2012	Trichloroethene	8.3	3.4	5	1.4
	Total VOC's	8.4	3.5		1.4
7/26/2012	Trichloroethene	7.7	2.7	5	1.5
	Total VOC's	7.8	2.7		1.5
8/29/2012	Trichloroethene	5.5	2.0	5	0.9
	Total VOC's	5.5	2.0		0.9
9/25/2012	Trichloroethene	5.0	1.9	5	0.8
	Total VOC's	5.0	1.9		0.8
10/29/2012	Trichloroethene	3.8	1.6	5	0.6
	Total VOC's	3.8	1.6		0.6
11/21/2012	Trichloroethene	4.3	1.9	5	0.7
	Total VOC's	4.3	1.9		0.7
12/18/2012	Trichloroethene	4.04	1.71	5	0.74
	Total VOC's	4.04	1.71		0.74

Table No. 3
Monthly Analytical Results May 2001- December 2016
Former SCM - Cortlandville
Site No. 712006

Sampling Date	Compound	Tower Influent	Tower Discharge	Reg Limit	Outfall at Cascade
1/24/2013	Trichloroethene	6.25	1.68	5	1.08
	Total VOC's	6.25	1.68		1.08
2/26/2013	Trichloroethene	6.97	2.83	5	1.17
	Total VOC's	7.10	2.83		1.17
3/21/2013	Trichloroethene	7.91	3.85	5	1.33
	Total VOC's	8.09 J	3.97 J		1.33
4/29/2013	Trichloroethene	7.57	3.08	5	1.36
	Total VOC's	7.73 J	3.18 J		1.36
5/21/2013	Trichloroethene	10.0	3.53	5	1.60
	Total VOC's	10.22 J	3.67 J		1.60
6/26/2013	Trichloroethene	7.42	2.56	5	1.27
	Total VOC's	7.56 J	2.56		1.27
7/29/2013	Trichloroethene	8.50	3.20	5	1.57
	Total VOC's	8.50	3.30 J		1.57
8/27/2013	Trichloroethene	10.60	3.78	5	1.65
	Total VOC's	10.75 J	3.78		1.65
9/25/2013	Trichloroethene	9.47	3.95	5	1.51
	Total VOC's	9.62 J	3.95		1.51
10/25/2013	Trichloroethene	9.23	4.18	5	1.62
	Total VOC's	9.41 J	4.31 J		1.62
11/26/2013	Trichloroethene	8.84	3.89	5	1.51
	Total VOC's	8.84	3.89		1.51
12/26/2013	Trichloroethene	10.00	4.71	5	1.77
	Total VOC's	10.14 J	4.71		1.77
1/29/2014	Trichloroethene	10.50	4.26	5	2.00
	Total VOC's	10.64 J	4.26		2.00
2/24/2014	Trichloroethene	10.90	1.94	5	1.35
	Total VOC's	11.1 J	1.94		1.35
3/28/2014	Trichloroethene	10.60	4.57	5	1.60
	Total VOC's	10.78 J	4.69 J		1.60
4/25/2014	Trichloroethene	11.20	4.34	5	1.62
	Total VOC's	11.35 J	4.34		1.62
5/29/2014	Trichloroethene	9.76	3.51	5	1.44
	Total VOC's	9.76	3.51		1.44
6/24/2014	Trichloroethene	10.40	3.50	5	1.64
	Total VOC's	10.52 J	3.50		1.64
7/23/2014	Trichloroethene	8.78	2.91	5	1.48
	Total VOC's	8.92 J	2.91		1.48
8/27/2014	Trichloroethene	8.10	2.77	5	1.31
	Total VOC's	8.22 J	2.77		1.31

Table No. 3
Monthly Analytical Results May 2001- December 2016
Former SCM - Cortlandville
Site No. 712006

Sampling Date	Compound	Tower Influent	Tower Discharge	Reg Limit	Outfall at Cascade
9/23/2014	Trichloroethene	6.99	2.76	5	1.11
	Total VOC's	6.99	2.76		1.11
10/28/2014	Trichloroethene	6.05	2.20	5	0.86
	Total VOC's	6.05	2.20		0.86
11/20/2014	Trichloroethene	5.93	2.78	5	0.94
	Total VOC's	6.48	2.78		0.94
12/23/2014	Trichloroethene	4.97	1.97	5	0.84
	Total VOC's	4.97	1.97		0.84
1/27/2015	Trichloroethene	6.06	2.18	5	1.18
	Total VOC's	6.06	2.18		1.18
2/18/2015	Trichloroethene	6.05	2.98	5	1.24
	Total VOC's	6.17 J	2.98		1.24
3/27/2015	Trichloroethene	6.20	2.91	5	1.17
	Total VOC's	6.34 J	3.01		1.17
4/23/2015	Trichloroethene	7.85	3.43	5	1.39
	Total VOC's	7.97 J	3.43		1.39
5/28/2015	Trichloroethene	8.03	2.88	5	1.34
	Total VOC's	8.16 J	2.88		1.34
6/23/2015	Trichloroethene	8.57	2.68	5	1.47
	Total VOC's	9.19	2.68		1.47
7/21/2015	Trichloroethene	9.85	3.27	5	1.49
	Total VOC's	9.85	3.27		1.49
8/19/2015	Trichloroethene	8.63	2.72	5	1.37
	Total VOC's	8.83 J	2.84 J		1.37
9/28/2015	Trichloroethene	6.58	2.35	5	1.03
	Total VOC's	6.58	2.35		1.03
10/26/2015	Trichloroethene	6.26	2.41	5	0.93
	Total VOC's	6.26	2.41		0.93
11/25/2015	Trichloroethene	4.68	1.87	5	0.81
	Total VOC's	4.68	1.87		0.81
12/17/2015	Trichloroethene	4.99	2.22	5	0.83
	Total VOC's	4.99	2.22		0.83
1/21/2016	Trichloroethene	4.89	2.77	5	0.95
	Total VOC's	4.89	2.77		0.95
2/29/2016	Trichloroethene	6.79	3.26	5	1.12
	Total VOC's	6.79	3.26		1.12
3/30/2016	Trichloroethene	6.50	2.83	5	1.20
	Total VOC's	6.61 J	2.83		1.20
4/27/2016	Trichloroethene	8.04	3.48	5	1.43
	Total VOC's	8.04	3.48		1.43

Table No. 3
Monthly Analytical Results May 2001- December 2016
Former SCM - Cortlandville
Site No. 712006

Sampling Date	Compound	Tower Influent	Tower Discharge	Reg Limit	Outfall at Cascade
5/26/2016	Trichloroethene	8.38	2.90	5	1.35
	Total VOC's	8.38	2.90		1.35
6/28/2016	Trichloroethene	6.21	2.16	5	1.06
	Total VOC's	6.21	2.16		1.06
7/28/2016	Trichloroethene	4.70	1.67	5	0.74
	Total VOC's	4.70	1.67		0.74
8/29/2016	Trichloroethene	3.71	1.43	5	0.60
	Total VOC's	3.71	1.43		0.60
9/26/2016	Trichloroethene	3.27	1.48	5	0.57
	Total VOC's	3.27	1.48		0.57
10/27/2016	Trichloroethene	2.69	1.30	5	0.54
	Total VOC's	2.69	1.30		0.54
11/16/2016	Trichloroethene	3.36	1.46	5	0.65
	Total VOC's	3.36	1.46		0.65
12/19/2016	Trichloroethene	3.70	2.07	5	0.78
	Total VOC's	3.70	2.07		0.78

Note:

All results in µg/L.

Table 4:
Comparison of TCE Concentrations in Groundwater

Well #	Highest TCE Concentration ¹	Date Highest TCE Observed ²	Nov. 2016 TCE Concentration ³	Highest TCE vs. Nov. 2016 % Change ⁴
Perimeter Shallow Wells				
MW-1S	47	Aug-1990	10.10	-78.5%
MW-2S	10	Nov-1991	1.88	-81.2%
MW-4S	2	Nov-1990 & Aug-1991	0.58	-71.0%
MW-5S	3	Nov-1990	0.62	-79.3%
MW-10S	170	May-1992	6.42	-96.2%
Perimeter Deep Wells				
MW-1D	32	Feb-1990	4.53	-85.8%
MW-2D	9	Aug-1990 & Nov-1991	NS	NA
MW-4D	2	Nov-1990 & Aug-1991	0.39	-80.5%
MW-5D	5	Nov-1990	1.60	-68.0%
MW-10D	60	Nov-1990	7.59	-87.4%
Interior Shallow Wells				
MW-6	62	May-1991	2.31	-96.3%
MW-7	290	Feb-1990	4.23	-98.5%
MW-8	110	May-1991	0.87	-99.2%
MW-11	3400	Nov-1990	2.93	-99.9%
MW-12S	280	Aug-1990	3.08	-98.9%
Interior Deep Wells				
MW-9	33	May-1993	0.69	-97.9%
MW-12D	45	May-1992	2.05	-95.4%
Facility Well				
MW-L16	41	Nov-2008	3.00	-92.7%

Notes:

All concentrations in parts per billion (ppb).

Highlighted cell indicated decrease in TCE Concentration.

¹ Highest TCE concentration observed, per Table 2.

² Date the highest TCE concentration was observed, per Table 2.

³ TCE concentration detected in November 2016, per Table 2.

⁴ Percent change in TCE concentration between highest concentration and November 2016.

ND = Not detected at the reporting limit.

NS = Not sampled, well damaged.

Table 5:
Comparison of TCE Concentrations in SSD/SVE Exhaust Samples

TCE Concentrations in SSD/SVE Exhaust Samples		
Sampling Date	TCE Concentration¹	TCE Concentration % Change vs. Jan. 2012²
1/10/2012	18,000	NA
5/31/2012	3,500	-80.6%
11/27/2012	3,200	-82.2%
11/26/2013	10,000	-44.4%
11/17/2014	2,700	-85.0%
11/1/2015	780	-95.7%
11/15/2016	2,200	-87.8%

Notes:

All TCE concentrations in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

¹ TCE concentration detected in SSD/SVE exhaust samples.

² Percent change in TCE concentration vs. January 2012.

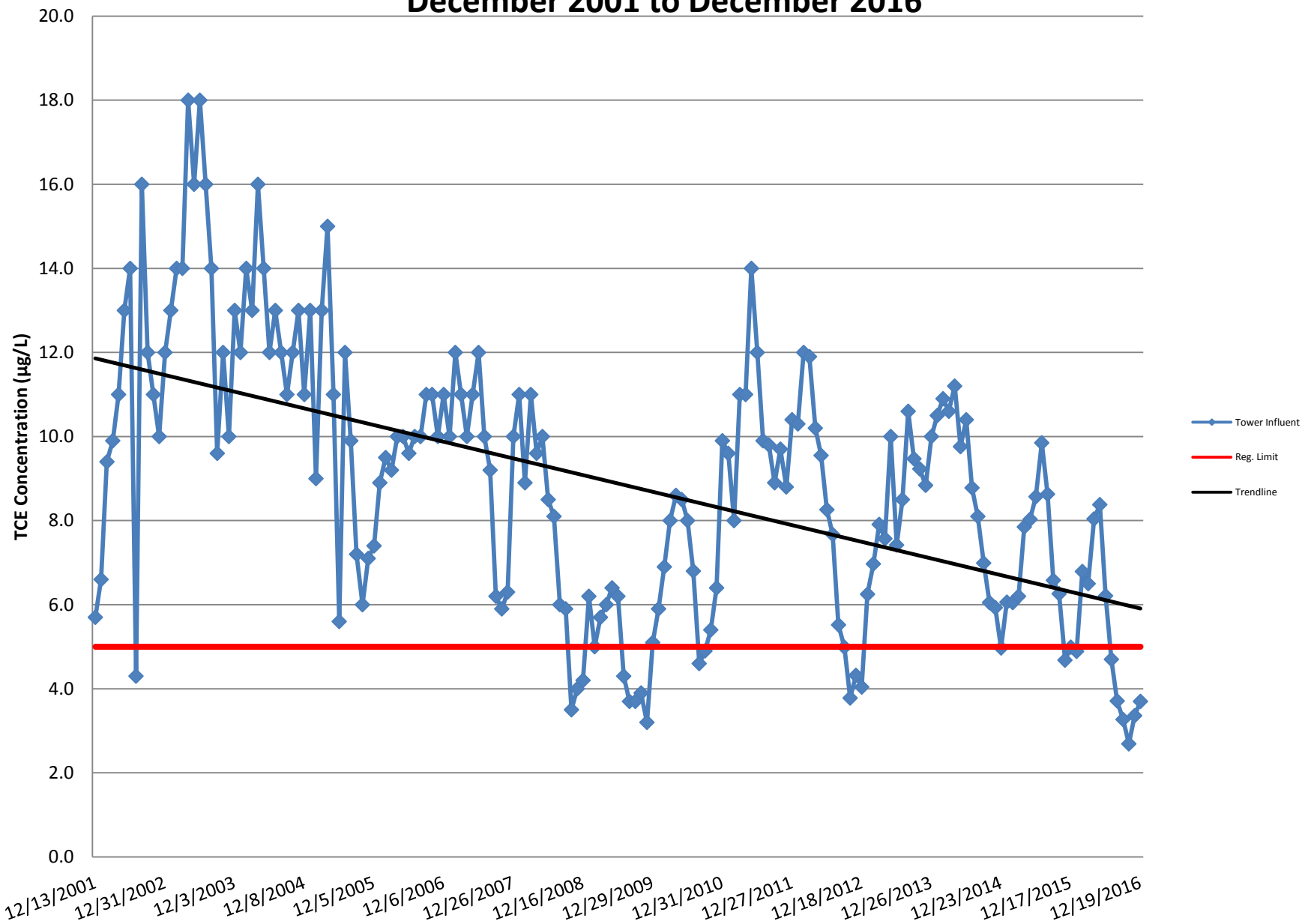
NA = Not Applicable.

SSD/SVE system energized in January 2012.

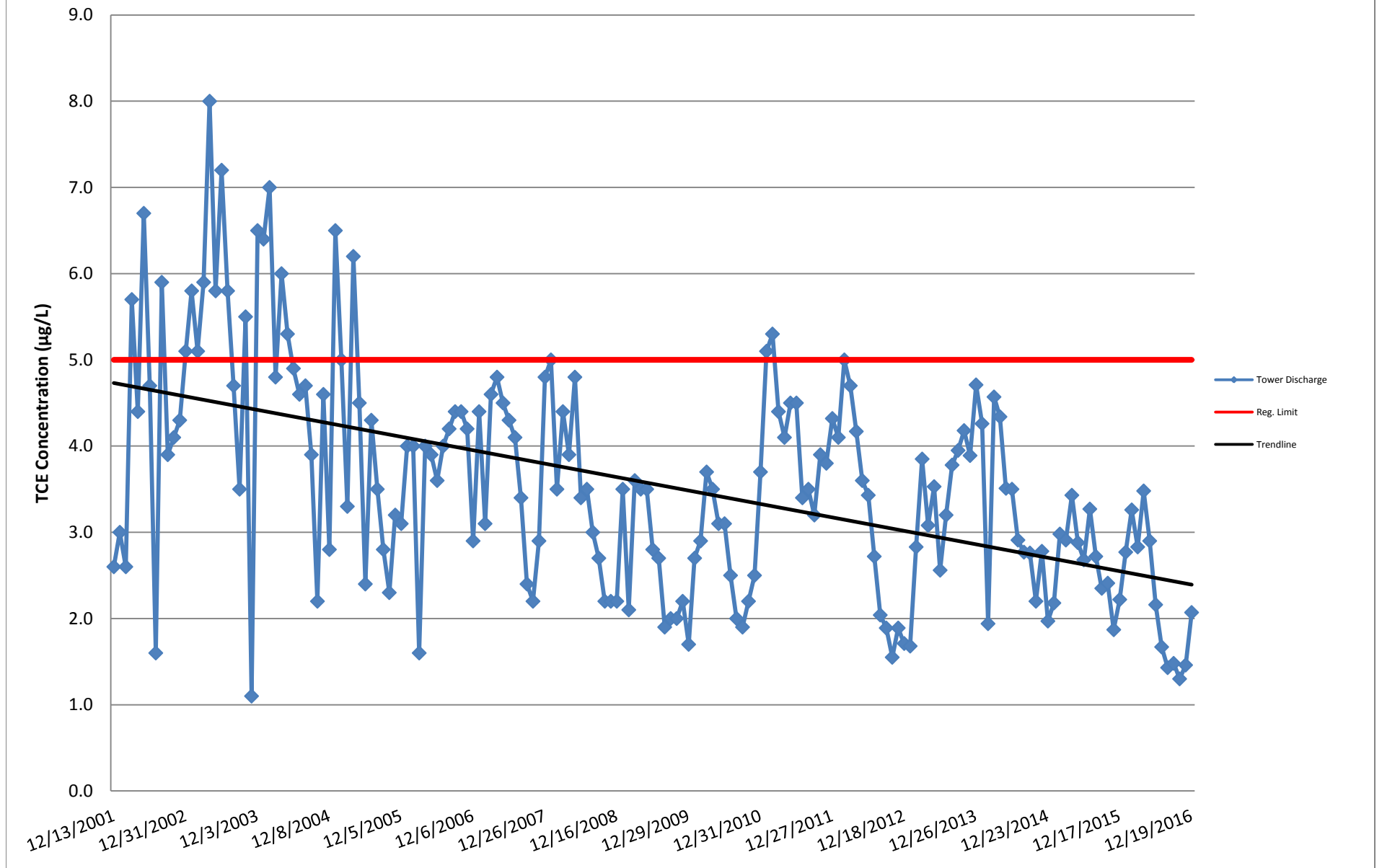
APPENDIX D

CHARTS

**Chart 1: Tower Influent TCE Concentrations (µg/L)
December 2001 to December 2016**



**Chart 2: Tower Discharge TCE Concentrations (µg/L)
December 2001 to December 2016**



Former SCM - Cortlandville
Site No. 712006
2016 PRR

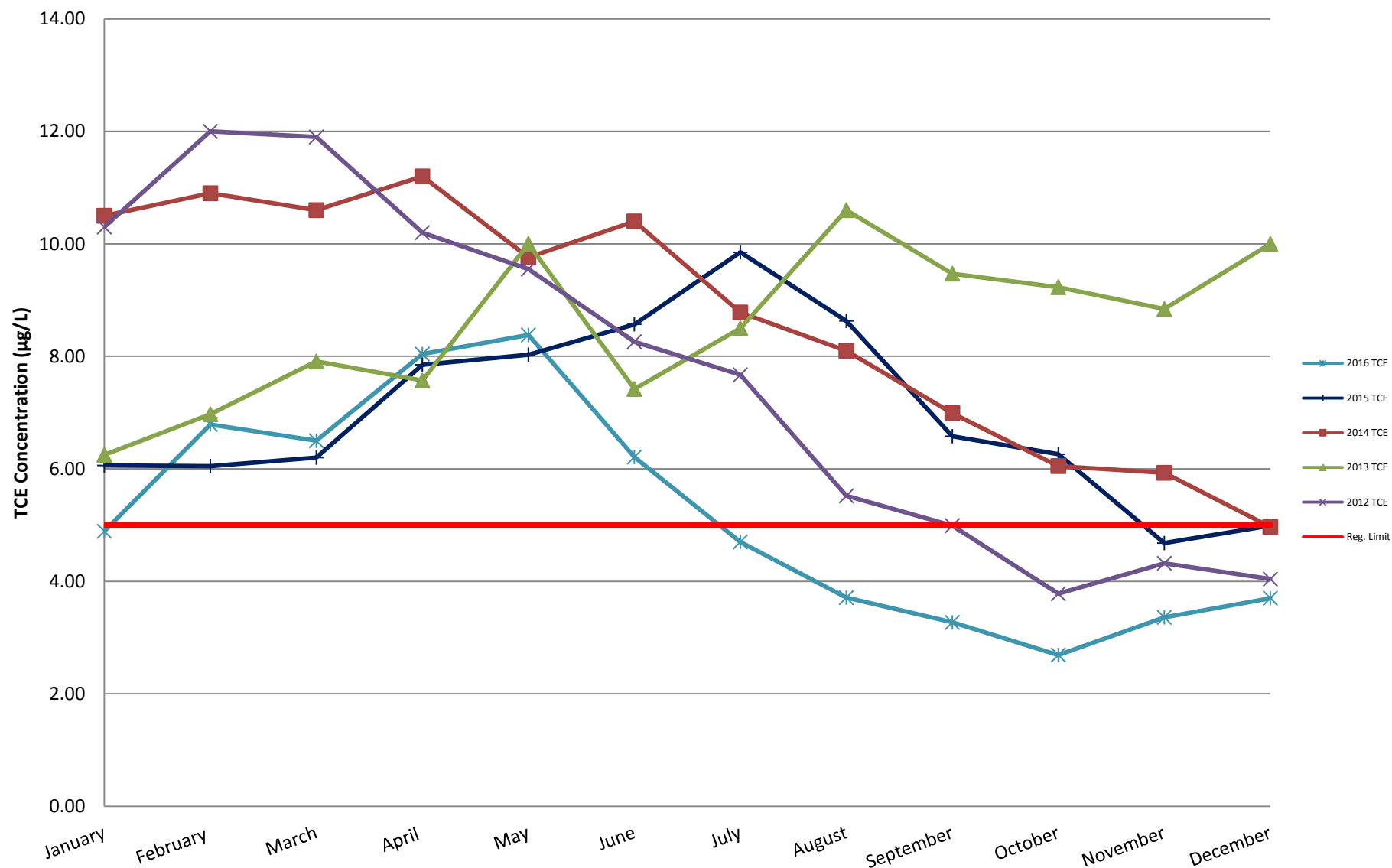
Chart 3: Cascade Outfall TCE Concentrations (µg/L)
December 2001 to December 2016

The chart displays TCE concentrations over a 15-year period. The y-axis represents TCE Concentration in µg/L, ranging from 0.0 to 6.0. The x-axis shows dates from 12/13/2001 to 12/19/2016. A red horizontal line at 5.0 µg/L indicates the Regulatory Limit. A black trendline shows a general decrease in concentration over time. The blue line represents the Cascade Outfall data, which shows significant fluctuations, including several peaks above 3.0 µg/L in the early 2000s and a general decline towards 1.0 µg/L by 2016.

Date	Cascade Outfall (µg/L)	Reg. Limit (µg/L)
12/13/2001	1.2	5.0
12/31/2002	3.4	5.0
12/3/2003	3.4	5.0
12/8/2004	2.7	5.0
12/5/2005	2.0	5.0
12/6/2006	1.8	5.0
12/26/2007	2.0	5.0
12/16/2008	1.0	5.0
12/29/2009	1.0	5.0
12/31/2010	1.8	5.0
12/27/2011	2.3	5.0
12/18/2012	1.4	5.0
12/26/2013	1.6	5.0
12/23/2014	1.4	5.0
12/17/2015	1.4	5.0
12/19/2016	0.8	5.0

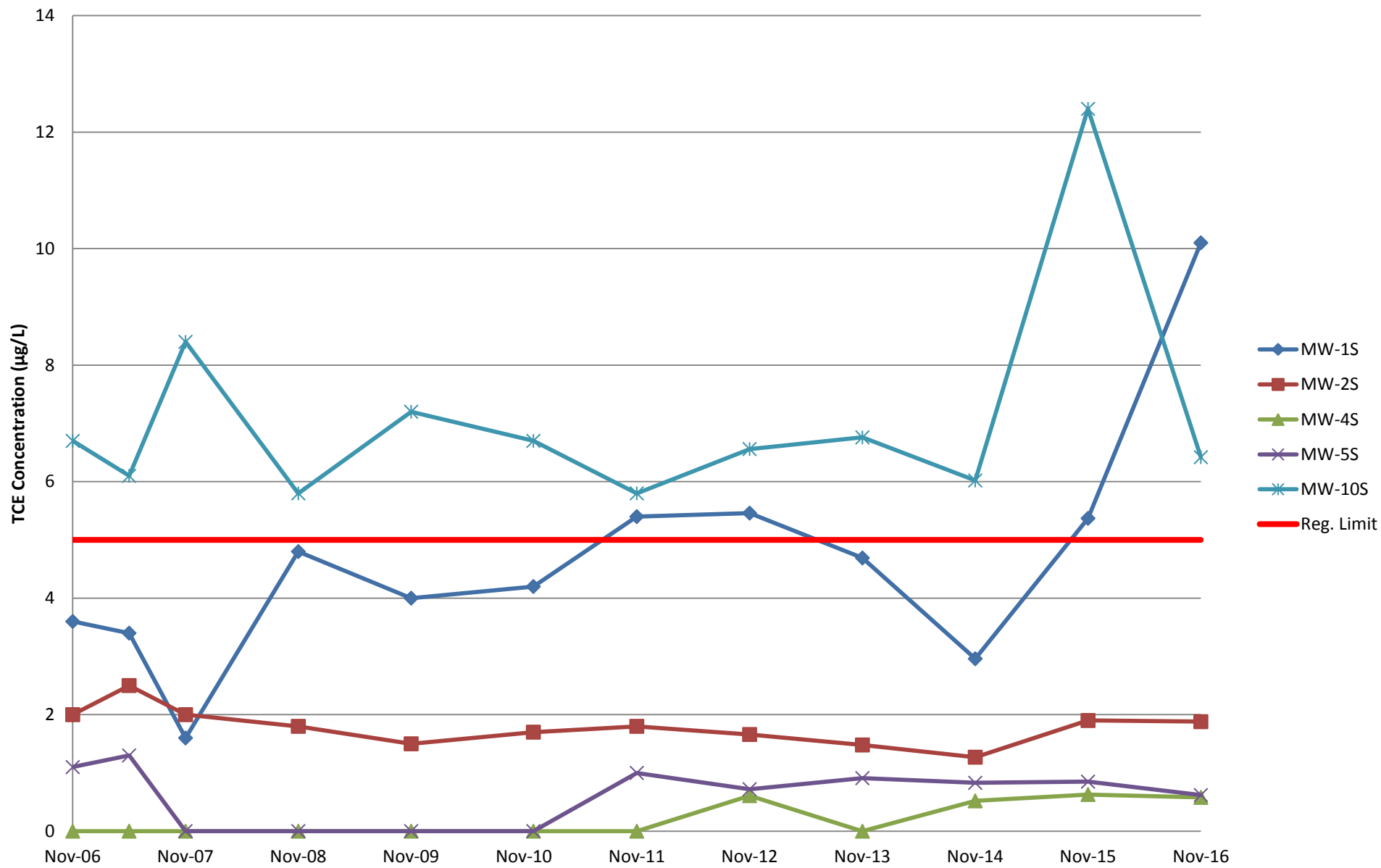
GeoLogic

**Chart 4: Tower Influent TCE Concentrations (µg/L)
2012, 2013, 2014, 2015 & 2016**



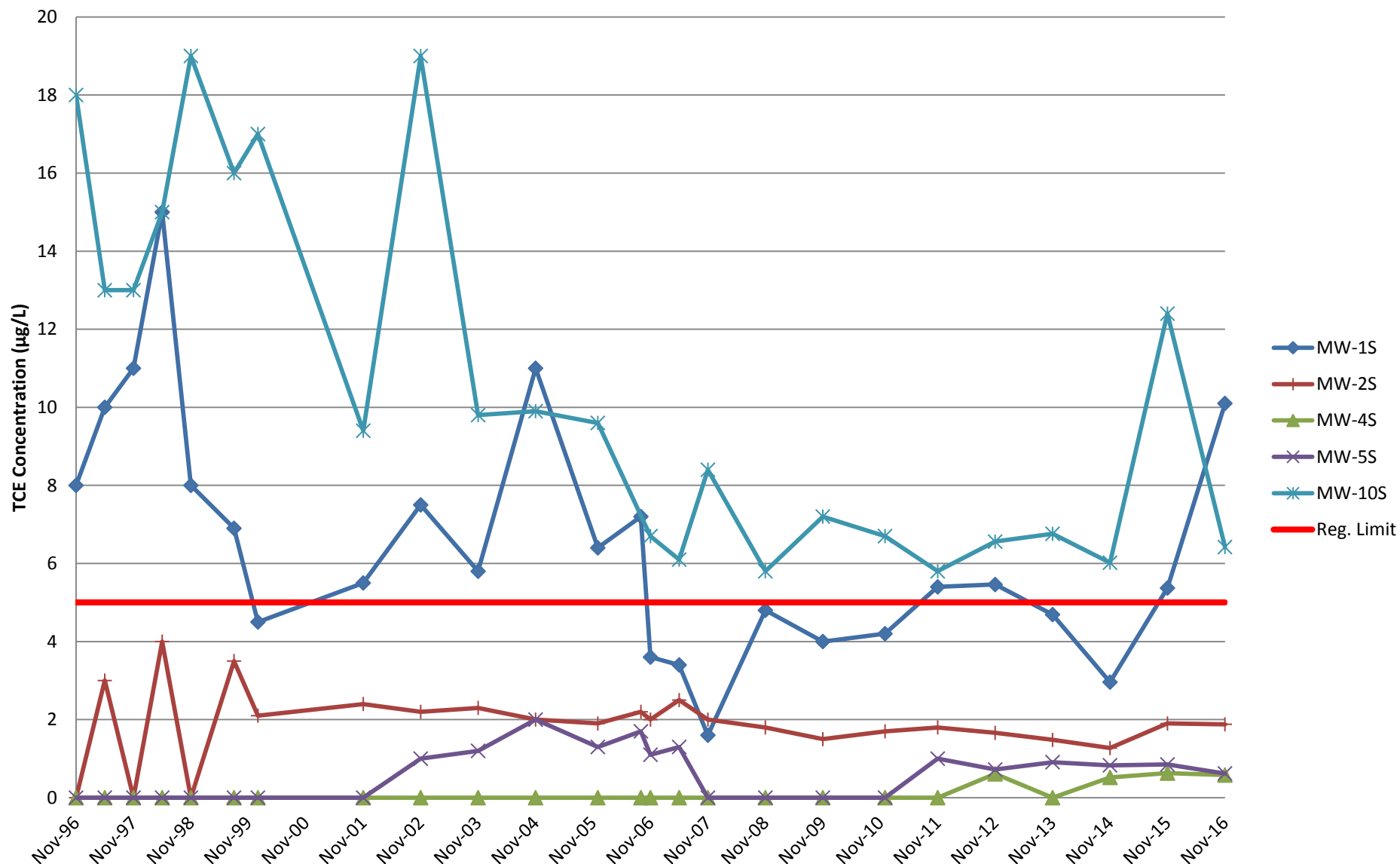
Former SCM - Cortlandville
Site No. 712006
2016 PRR

Chart 5: Perimeter Shallow Wells 10-Year TCE Concentrations (µg/L)



Former SCM - Cortlandville
Site No. 712006
2016 PRR

**Chart 6: Perimeter Shallow Wells
20-Year TCE Concentrations (µg/L)**



Former SCM - Cortlandville
Site No. 712006
2016 PRR

Chart 7: Perimeter Deep Wells 10-Year TCE Concentrations (µg/L)

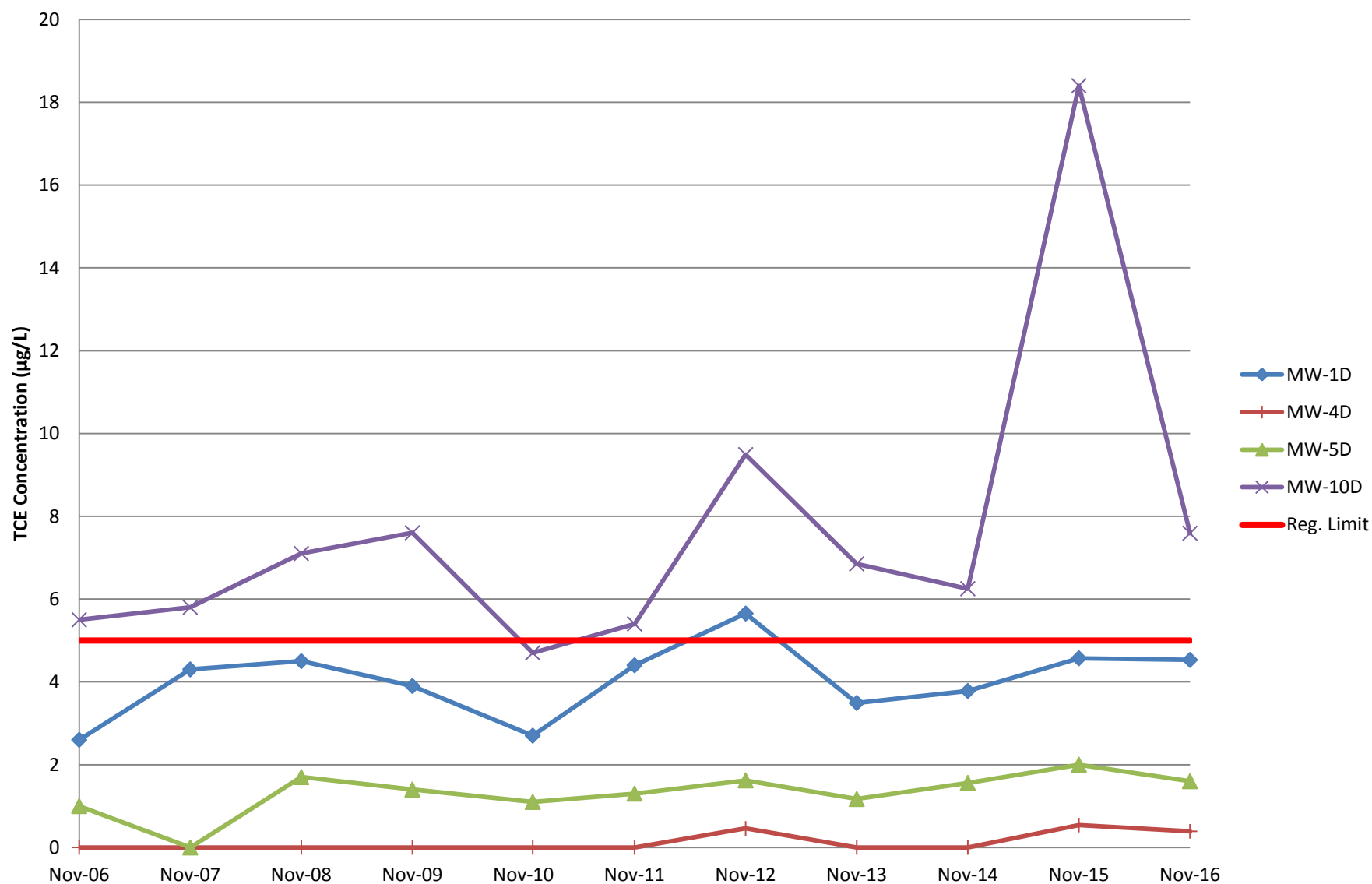
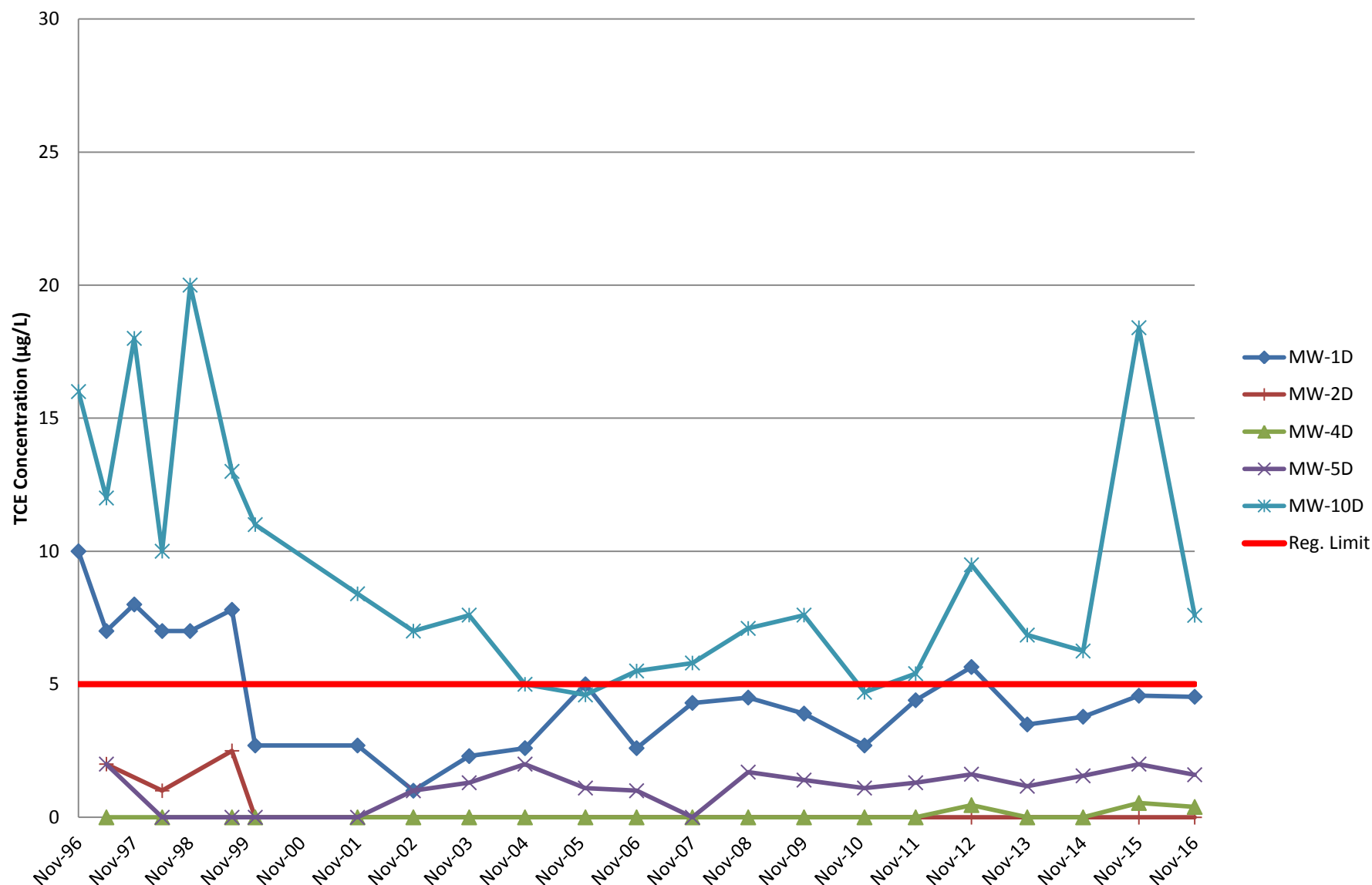


Chart 8: Perimeter Deep Wells 20-Year TCE Concentrations (µg/L)



Former SCM - Cortlandville
Site No. 712006
2016 PRR

**Chart 9: Interior Shallow Wells
10-Year TCE Concentrations (µg/L)**

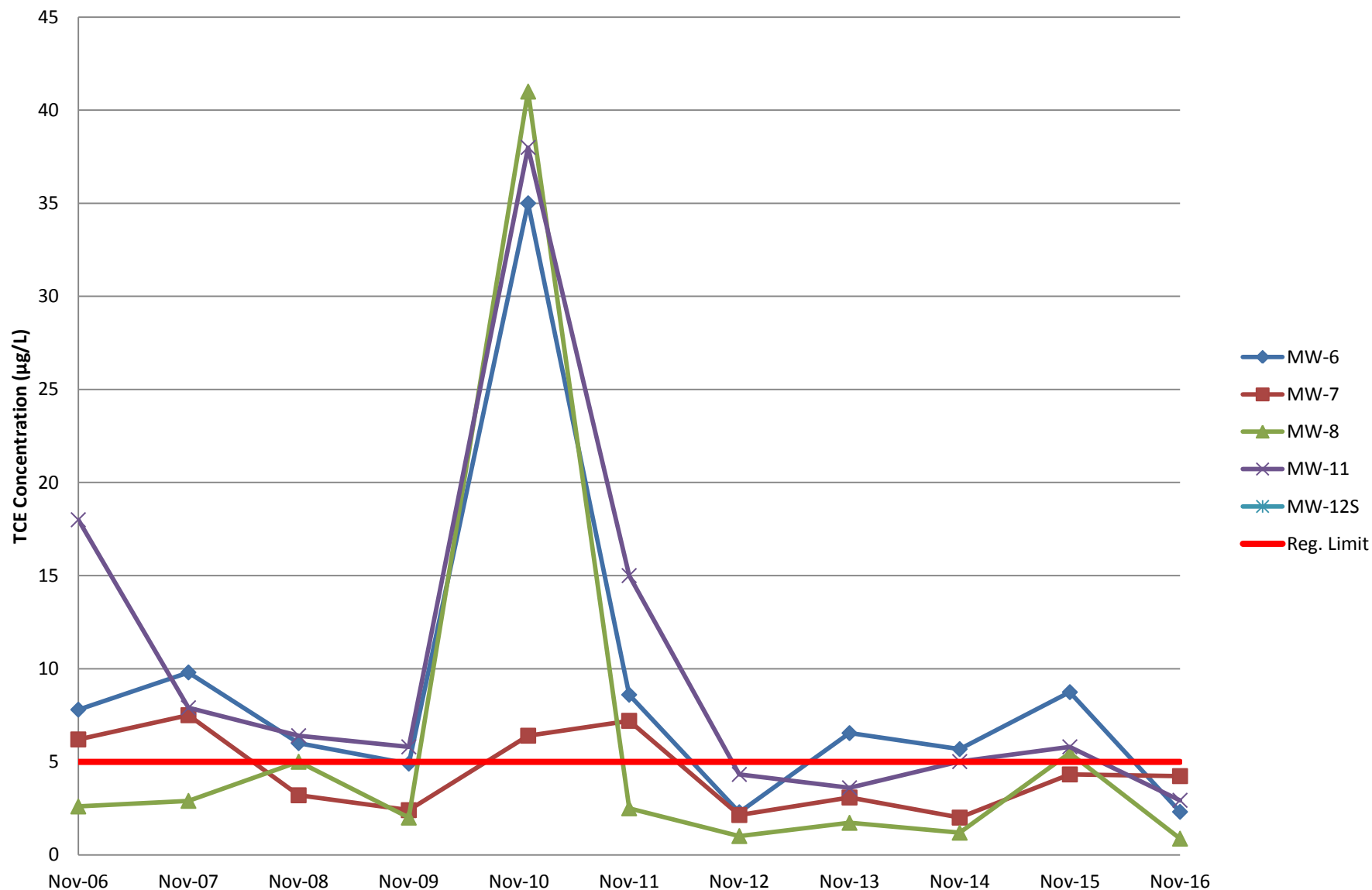
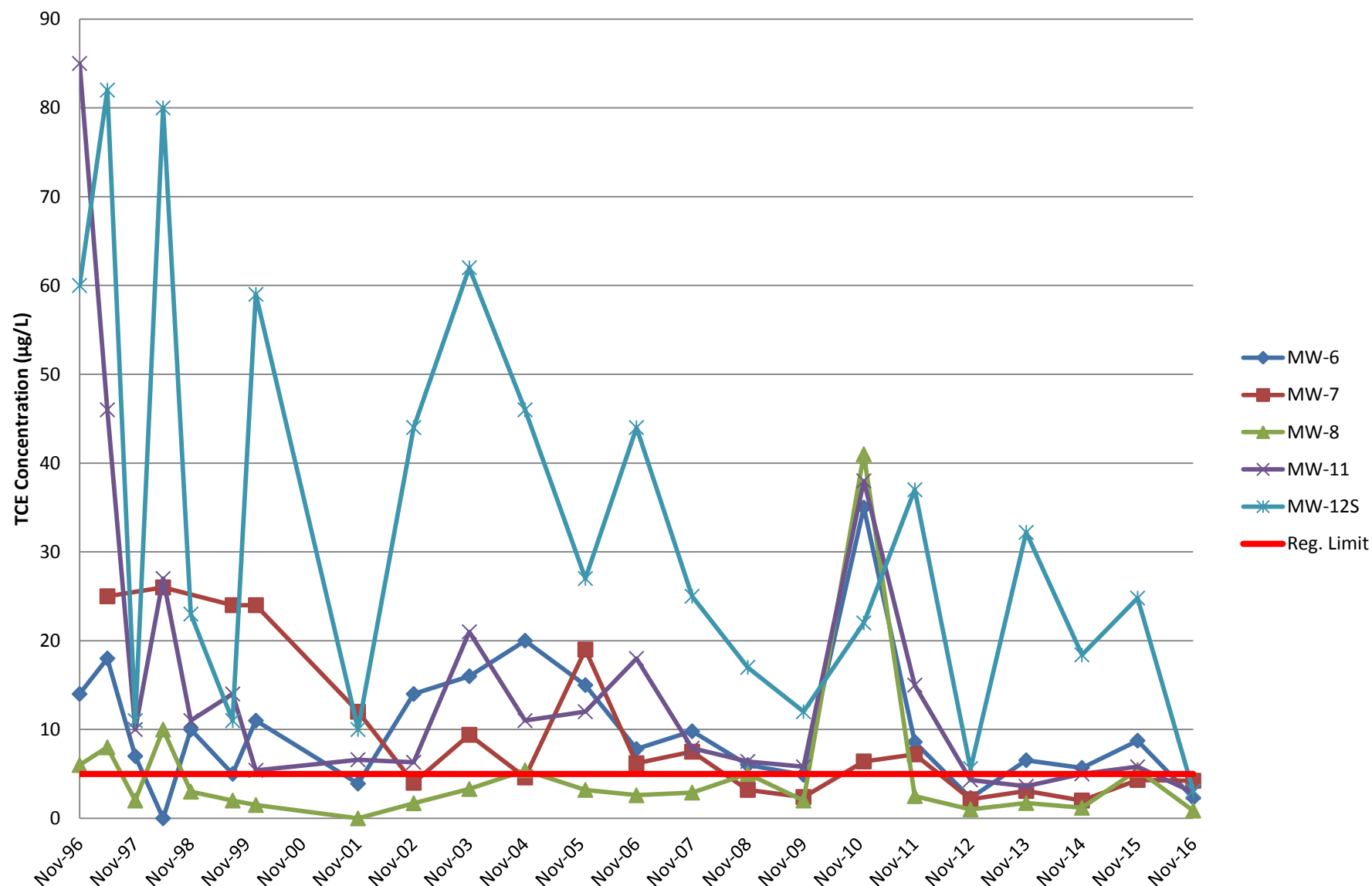
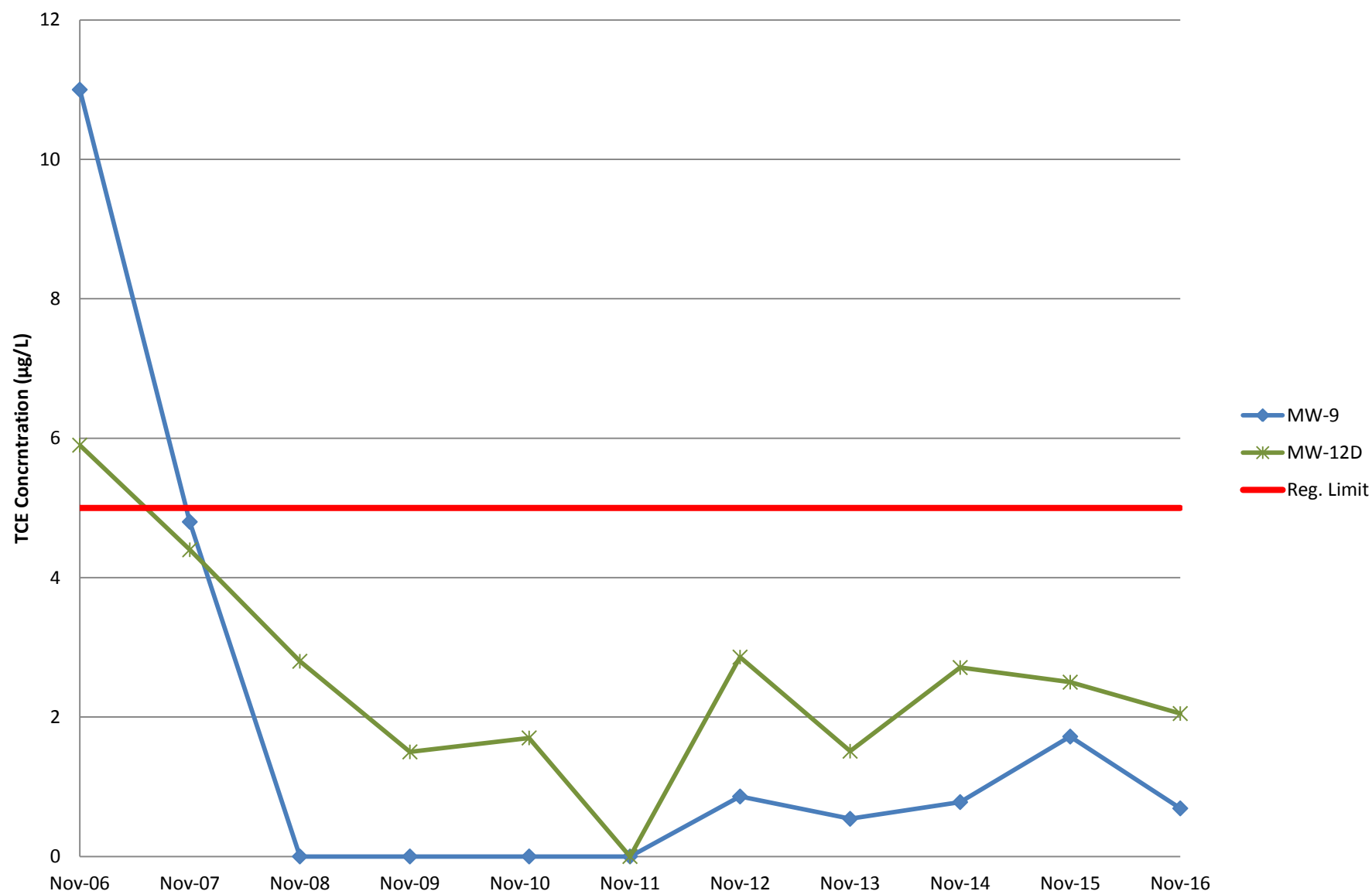


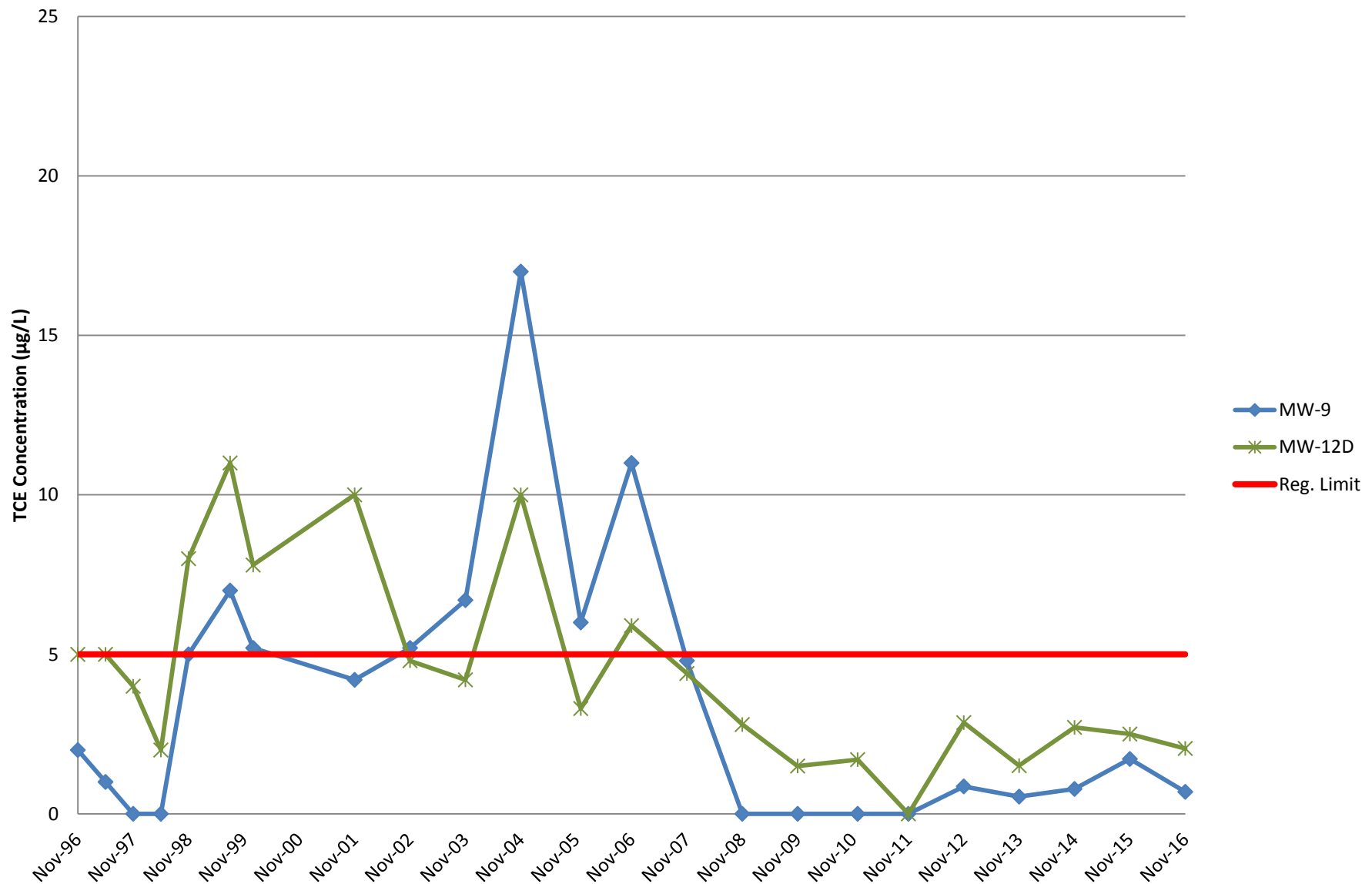
Chart 10: Interior Shallow Wells 20-Year TCE Concentrations (µg/L)



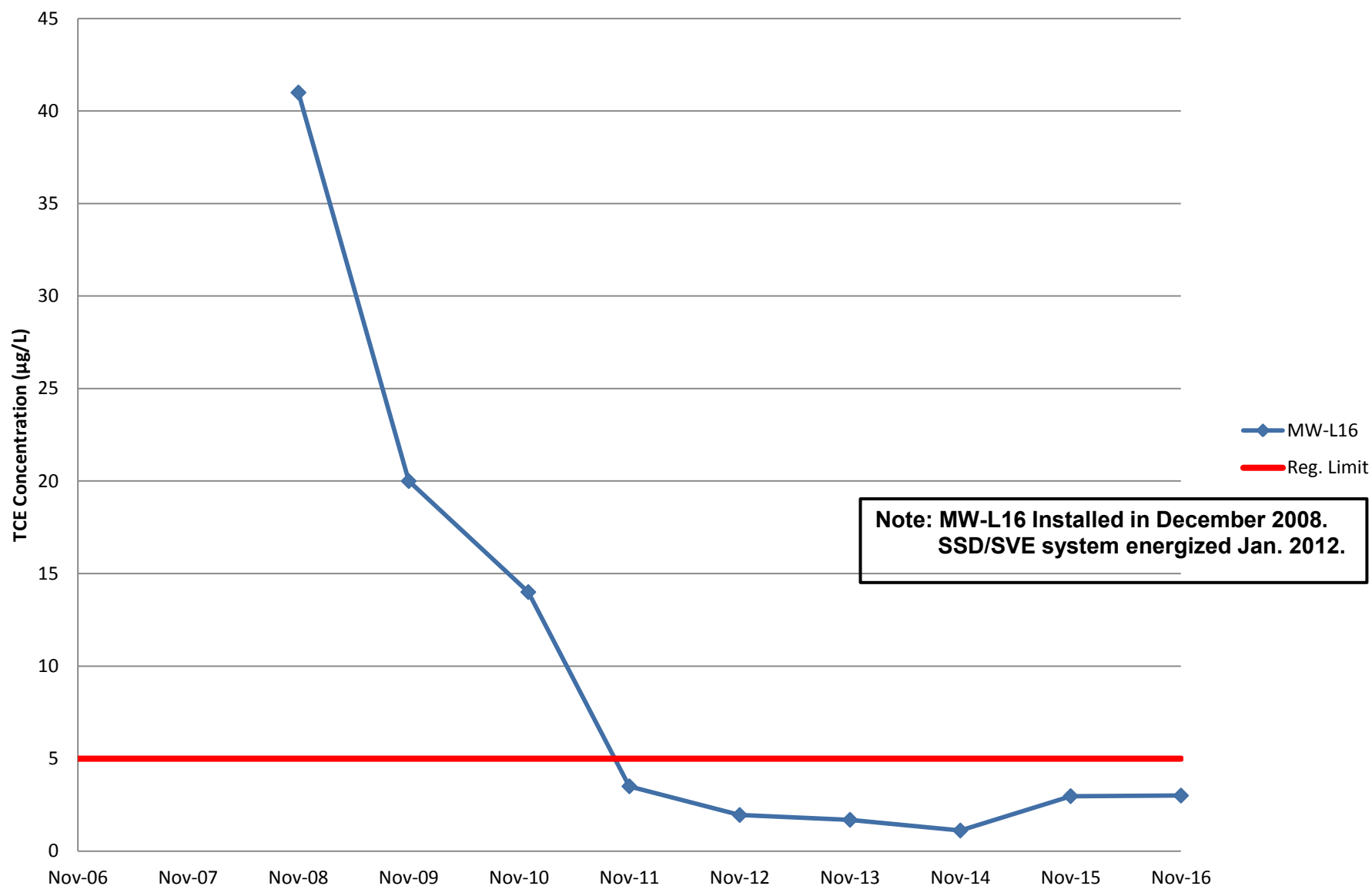
**Chart 11: Interior Deep Wells
10-Year TCE Concentration (µg/L)**



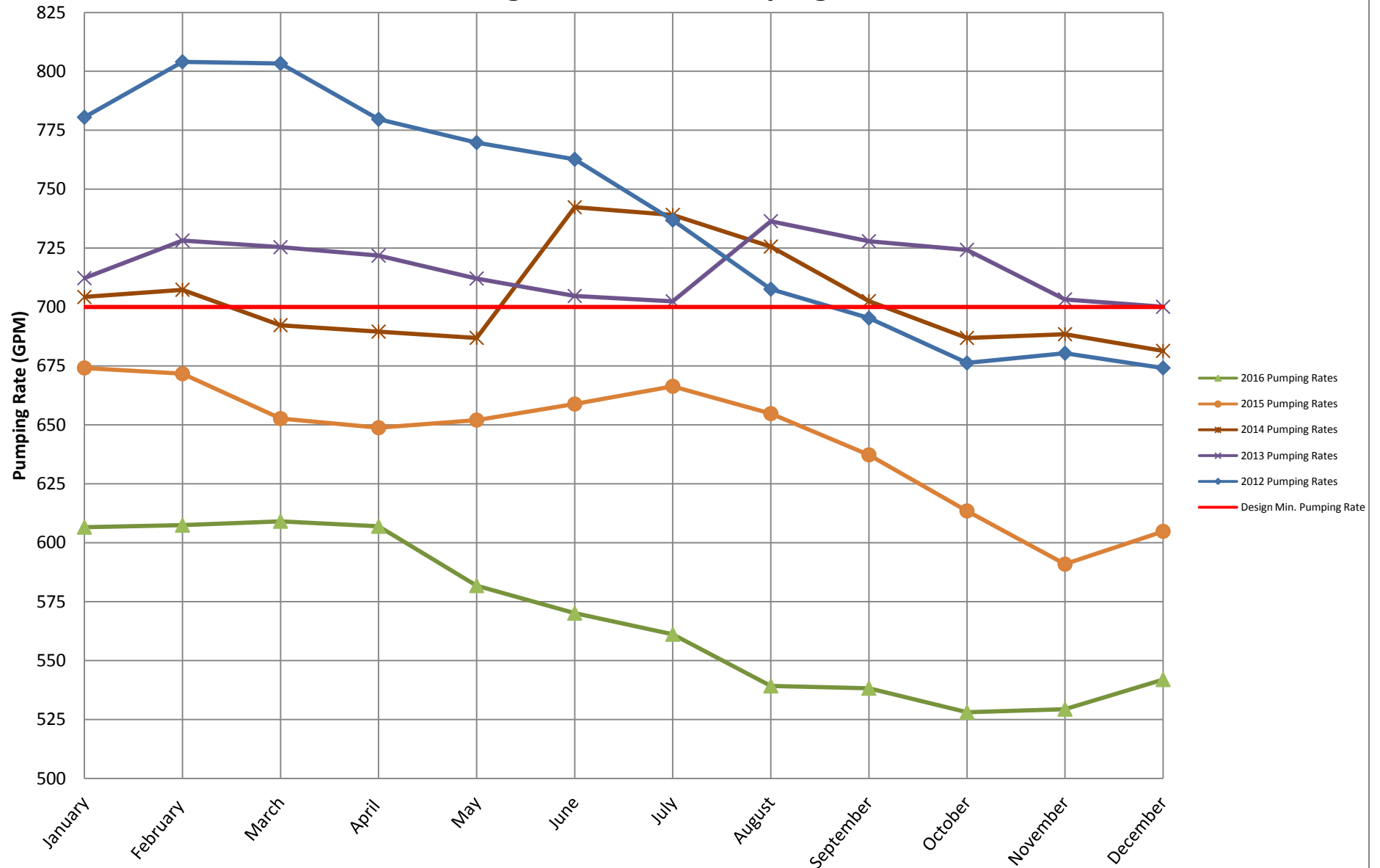
**Chart 12: Interior Deep Wells
20-Year TCE Concentrations (µg/L)**



**Chart 13: MW-L16 Interior Shallow Well
10-Year TCE Concentrations (µg/L)**

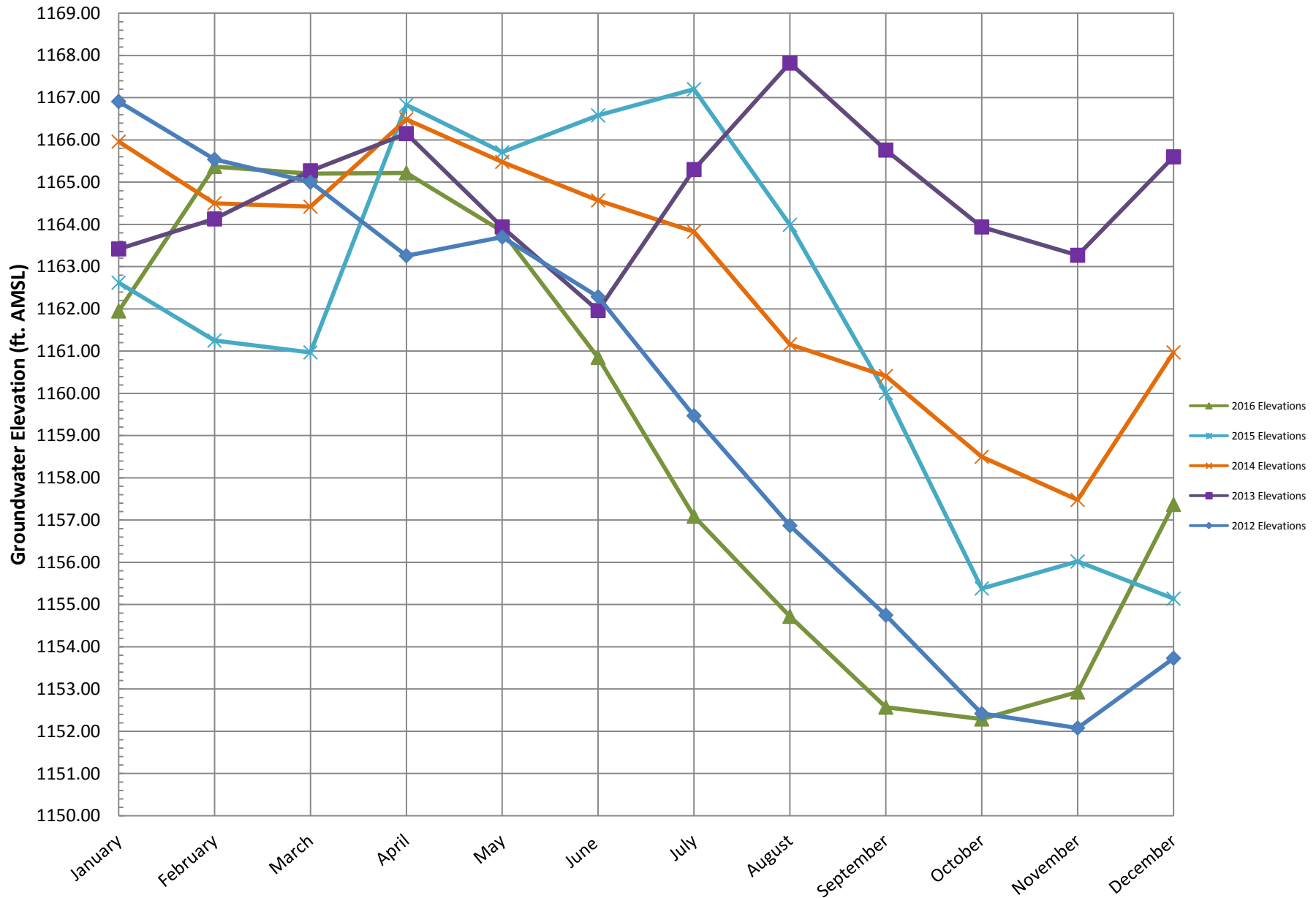


**Chart 14: 2012, 2013, 2014, 2015 & 2016 Pumping Rates vs.
Design Minimum Pumping Rate**



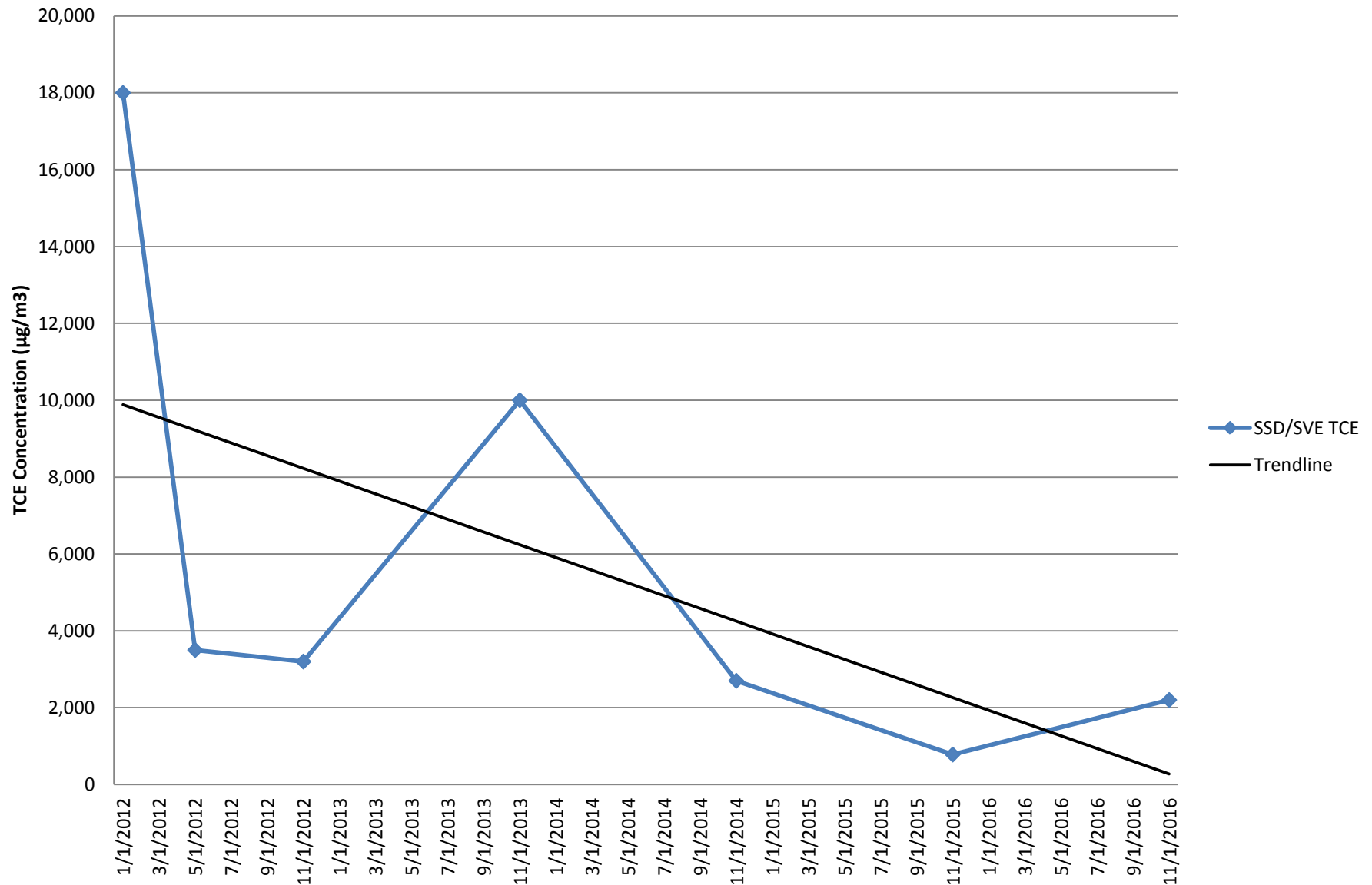
Former SCM - Cortlandville
Site No. 712006
2016 PRR

**Chart 15: Recovery Well Groundwater Elevations:
2012, 2013, 2014, 2015 & 2016**



Former SCM - Cortlandville
Site No. 712006
2016 PRR

**Chart 16: SSD/SVE Exhaust
TCE Concentrations ($\mu\text{g}/\text{m}^3$)**



Former SCM - Cortlandville
Site No. 712006
2016 PRR

APPENDIX E

***ANALYTICAL RESULTS FROM 2016 ANNUAL SAMPLING EVENT,
NOVEMBER AND DECEMBER MONTHLY SAMPLING EVENTS***



Life Science Laboratories, Inc.

5854 Butternut Drive
East Syracuse, NY 13057

(315) 445-1900

Tuesday, December 06, 2016

Mr. Christopher Gabriel
GeoLogic NY, Inc.
37 Copeland Ave.
Homer, NY 13077

TEL: 607 749-5000

Project: 210087 ANNUAL

RE: Analytical Results

Order No.: K1611165

Dear Mr. Christopher Gabriel:

Life Science Laboratories, Inc. received 19 sample(s) on 11/16/2016 for the analyses presented in the following report. Sample results relate only to the samples as received by the laboratory.

Very truly yours,
Life Science Laboratories, Inc.

David J Prichard
Project Manager



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Lab ID: K1611165-001A

Client Sample ID: MW-IS

Collection Date: 11/14/16 12:15

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2106.D

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 10:25	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 10:25	
cis-1,2-Dichloroethene	0.27 J	0.50	0.10	µg/L	1	11/18/16 10:25	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 10:25	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 10:25	
Trichloroethene	10.1	0.50	0.10	µg/L	1	11/18/16 10:25	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 10:25	
Surr: 1,2-Dichloroethane-d4	107	75-130	0.16	%REC	1	11/18/16 10:25	
Surr: Toluene-d8	102	75-125	0.10	%REC	1	11/18/16 10:25	
Surr: 4-Bromofluorobenzene	104	75-125	0.10	%REC	1	11/18/16 10:25	

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796772

Project Supervisor: David J Prichard



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Lab ID: K1611165-002A

Client Sample ID: MW-1D

Collection Date: 11/14/16 12:20

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2107.D

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 10:58	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 10:58	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 10:58	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 10:58	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 10:58	
Trichloroethene	4.53	0.50	0.10	µg/L	1	11/18/16 10:58	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 10:58	
Surr: 1,2-Dichloroethane-d4	104	75-130	0.16	%REC	1	11/18/16 10:58	
Surr: Toluene-d8	101	75-125	0.10	%REC	1	11/18/16 10:58	
Surr: 4-Bromofluorobenzene	103	75-125	0.10	%REC	1	11/18/16 10:58	

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796773

Project Supervisor: David J Prichard



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5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Lab ID: K1611165-003A

Client Sample ID: MW-2S

Collection Date: 11/14/16 13:30

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2108.D

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1		11/18/16 11:31
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1		11/18/16 11:31
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1		11/18/16 11:31
Tetrachloroethene	ND	0.50	0.10	µg/L	1		11/18/16 11:31
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1		11/18/16 11:31
Trichloroethene	1.88	0.50	0.10	µg/L	1		11/18/16 11:31
Vinyl chloride	ND	1.00	0.33	µg/L	1		11/18/16 11:31
Surr: 1,2-Dichloroethane-d4	106	75-130	0.16	%REC	1		11/18/16 11:31
Surr: Toluene-d8	102	75-125	0.10	%REC	1		11/18/16 11:31
Surr: 4-Bromofluorobenzene	101	75-125	0.10	%REC	1		11/18/16 11:31

Qualifiers:

* Value may exceed the Acceptable Level
E Value exceeds the instrument calibration range
J Analyte detected below the PQL
P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Practical Quantitation Limit (PQL)
S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796774

Project Supervisor: David J Prichard



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Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Lab ID: K1611165-004A

Client Sample ID: MW-4S

Collection Date: 11/14/16 15:55

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2109.D

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1		11/18/16 12:04
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1		11/18/16 12:04
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1		11/18/16 12:04
Tetrachloroethene	ND	0.50	0.10	µg/L	1		11/18/16 12:04
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1		11/18/16 12:04
Trichloroethene	0.58	0.50	0.10	µg/L	1		11/18/16 12:04
Vinyl chloride	ND	1.00	0.33	µg/L	1		11/18/16 12:04
Surr: 1,2-Dichloroethane-d4	108	75-130	0.16	%REC	1		11/18/16 12:04
Surr: Toluene-d8	103	75-125	0.10	%REC	1		11/18/16 12:04
Surr: 4-Bromofluorobenzene	102	75-125	0.10	%REC	1		11/18/16 12:04

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796775

Project Supervisor: David J Prichard



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Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Lab ID: K1611165-005A

Client Sample ID: MW-4D

Collection Date: 11/14/16 16:15

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2110.D

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 12:51	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 12:51	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 12:51	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 12:51	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 12:51	
Trichloroethene	0.39 J	0.50	0.10	µg/L	1	11/18/16 12:51	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 12:51	
Surr: 1,2-Dichloroethane-d4	108	75-130	0.16	%REC	1	11/18/16 12:51	
Surr: Toluene-d8	102	75-125	0.10	%REC	1	11/18/16 12:51	
Surr: 4-Bromofluorobenzene	103	75-125	0.10	%REC	1	11/18/16 12:51	

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796776

Project Supervisor: David J Prichard



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Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Lab ID: K1611165-006A

Client Sample ID: MW-5S

Collection Date: 11/14/16 11:20

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2111.D

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 13:38	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 13:38	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 13:38	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 13:38	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 13:38	
Trichloroethene	0.62	0.50	0.10	µg/L	1	11/18/16 13:38	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 13:38	
Surr: 1,2-Dichloroethane-d4	105	75-130	0.16	%REC	1	11/18/16 13:38	
Surr: Toluene-d8	102	75-125	0.10	%REC	1	11/18/16 13:38	
Surr: 4-Bromofluorobenzene	103	75-125	0.10	%REC	1	11/18/16 13:38	

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796777

Project Supervisor: David J Prichard



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Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Lab ID: K1611165-007A

Client Sample ID: MW-5D

Collection Date: 11/14/16 11:30

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2112.D

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 14:33	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 14:33	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 14:33	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 14:33	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 14:33	
Trichloroethene	1.60	0.50	0.10	µg/L	1	11/18/16 14:33	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 14:33	
Surr: 1,2-Dichloroethane-d4	106	75-130	0.16	%REC	1	11/18/16 14:33	
Surr: Toluene-d8	101	75-125	0.10	%REC	1	11/18/16 14:33	
Surr: 4-Bromofluorobenzene	102	75-125	0.10	%REC	1	11/18/16 14:33	

Qualifiers:

* Value may exceed the Acceptable Level
E Value exceeds the instrument calibration range
J Analyte detected below the PQL
P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Practical Quantitation Limit (PQL)
S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796778

Project Supervisor: David J Prichard



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Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Lab ID: K1611165-008A

Client Sample ID: MW-6

Collection Date: 11/15/16 12:35

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2113.D

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 15:06	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 15:06	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 15:06	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 15:06	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 15:06	
Trichloroethene	2.31	0.50	0.10	µg/L	1	11/18/16 15:06	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 15:06	
Surr: 1,2-Dichloroethane-d4	105	75-130	0.16	%REC	1	11/18/16 15:06	
Surr: Toluene-d8	102	75-125	0.10	%REC	1	11/18/16 15:06	
Surr: 4-Bromofluorobenzene	103	75-125	0.10	%REC	1	11/18/16 15:06	

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796779

Project Supervisor: David J Prichard



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Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Lab ID: K1611165-009A

Client Sample ID: MW-7

Collection Date: 11/15/16 11:05

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2114.D

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 15:39	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 15:39	
cis-1,2-Dichloroethene	0.20 J	0.50	0.10	µg/L	1	11/18/16 15:39	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 15:39	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 15:39	
Trichloroethene	4.23	0.50	0.10	µg/L	1	11/18/16 15:39	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 15:39	
Surr: 1,2-Dichloroethane-d4	104	75-130	0.16	%REC	1	11/18/16 15:39	
Surr: Toluene-d8	102	75-125	0.10	%REC	1	11/18/16 15:39	
Surr: 4-Bromofluorobenzene	105	75-125	0.10	%REC	1	11/18/16 15:39	

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796780

Project Supervisor: David J Prichard



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Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Lab ID: K1611165-010A

Client Sample ID: MW-8

Collection Date: 11/15/16 14:15

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2115.D

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 16:12	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 16:12	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 16:12	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 16:12	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 16:12	
Trichloroethene	0.87	0.50	0.10	µg/L	1	11/18/16 16:12	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 16:12	
Surr: 1,2-Dichloroethane-d4	104	75-130	0.16	%REC	1	11/18/16 16:12	
Surr: Toluene-d8	101	75-125	0.10	%REC	1	11/18/16 16:12	
Surr: 4-Bromofluorobenzene	103	75-125	0.10	%REC	1	11/18/16 16:12	

Qualifiers:

* Value may exceed the Acceptable Level
E Value exceeds the instrument calibration range
J Analyte detected below the PQL
P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Practical Quantitation Limit (PQL)
S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796781

Project Supervisor: David J Prichard



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Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Lab ID: K1611165-011A

Client Sample ID: MW-9

Collection Date: 11/15/16 11:25

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2116.D

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1		11/18/16 16:45
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1		11/18/16 16:45
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1		11/18/16 16:45
Tetrachloroethene	ND	0.50	0.10	µg/L	1		11/18/16 16:45
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1		11/18/16 16:45
Trichloroethene	0.69	0.50	0.10	µg/L	1		11/18/16 16:45
Vinyl chloride	ND	1.00	0.33	µg/L	1		11/18/16 16:45
Surr: 1,2-Dichloroethane-d4	105	75-130	0.16	%REC	1		11/18/16 16:45
Surr: Toluene-d8	101	75-125	0.10	%REC	1		11/18/16 16:45
Surr: 4-Bromofluorobenzene	103	75-125	0.10	%REC	1		11/18/16 16:45

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796782

Project Supervisor: David J Prichard



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Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Lab ID: K1611165-012A

Client Sample ID: MW-10S

Collection Date: 11/14/16 14:25

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2117.D

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 17:18	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 17:18	
cis-1,2-Dichloroethene	0.32 J	0.50	0.10	µg/L	1	11/18/16 17:18	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 17:18	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 17:18	
Trichloroethene	6.42	0.50	0.10	µg/L	1	11/18/16 17:18	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 17:18	
Surr: 1,2-Dichloroethane-d4	105	75-130	0.16	%REC	1	11/18/16 17:18	
Surr: Toluene-d8	103	75-125	0.10	%REC	1	11/18/16 17:18	
Surr: 4-Bromofluorobenzene	105	75-125	0.10	%REC	1	11/18/16 17:18	

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796783

Project Supervisor: David J Prichard



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Lab ID: K1611165-013A

Client Sample ID: MW-10D

Collection Date: 11/14/16 14:40

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2118.D

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/18/16 17:50
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/18/16 17:50
cis-1,2-Dichloroethene	0.21	J	0.50	0.10	µg/L	1	11/18/16 17:50
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/18/16 17:50
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/18/16 17:50
Trichloroethene	7.59		0.50	0.10	µg/L	1	11/18/16 17:50
Vinyl chloride	ND		1.00	0.33	µg/L	1	11/18/16 17:50
Surr: 1,2-Dichloroethane-d4	106		75-130	0.16	%REC	1	11/18/16 17:50
Surr: Toluene-d8	102		75-125	0.10	%REC	1	11/18/16 17:50
Surr: 4-Bromofluorobenzene	103		75-125	0.10	%REC	1	11/18/16 17:50

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796784

Project Supervisor: David J Prichard



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Lab ID: K1611165-014A

Client Sample ID: MW-11

Collection Date: 11/15/16 10:45

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2119.D

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 18:23	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 18:23	
cis-1,2-Dichloroethene	0.54	0.50	0.10	µg/L	1	11/18/16 18:23	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 18:23	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 18:23	
Trichloroethene	2.93	0.50	0.10	µg/L	1	11/18/16 18:23	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 18:23	
Surr: 1,2-Dichloroethane-d4	104	75-130	0.16	%REC	1	11/18/16 18:23	
Surr: Toluene-d8	101	75-125	0.10	%REC	1	11/18/16 18:23	
Surr: 4-Bromofluorobenzene	102	75-125	0.10	%REC	1	11/18/16 18:23	

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796785

Project Supervisor: David J Prichard



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Lab ID: K1611165-015A

Client Sample ID: MW-12S

Collection Date: 11/15/16 9:20

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2120.D

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND		0.50	0.10	µg/L	1	11/18/16 18:56
1,1-Dichloroethene	ND		0.50	0.16	µg/L	1	11/18/16 18:56
cis-1,2-Dichloroethene	0.11	J	0.50	0.10	µg/L	1	11/18/16 18:56
Tetrachloroethene	ND		0.50	0.10	µg/L	1	11/18/16 18:56
trans-1,2-Dichloroethene	ND		0.50	0.10	µg/L	1	11/18/16 18:56
Trichloroethene	3.08		0.50	0.10	µg/L	1	11/18/16 18:56
Vinyl chloride	ND		1.00	0.33	µg/L	1	11/18/16 18:56
Surr: 1,2-Dichloroethane-d4	107		75-130	0.16	%REC	1	11/18/16 18:56
Surr: Toluene-d8	102		75-125	0.10	%REC	1	11/18/16 18:56
Surr: 4-Bromofluorobenzene	106		75-125	0.10	%REC	1	11/18/16 18:56

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796786

Project Supervisor: David J Prichard



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Lab ID: K1611165-016A

Client Sample ID: MW-12D

Collection Date: 11/15/16 9:30

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2121.D

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 19:29	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 19:29	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 19:29	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 19:29	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 19:29	
Trichloroethene	2.05	0.50	0.10	µg/L	1	11/18/16 19:29	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 19:29	
Surr: 1,2-Dichloroethane-d4	105	75-130	0.16	%REC	1	11/18/16 19:29	
Surr: Toluene-d8	102	75-125	0.10	%REC	1	11/18/16 19:29	
Surr: 4-Bromofluorobenzene	103	75-125	0.10	%REC	1	11/18/16 19:29	

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796787

Project Supervisor: David J Prichard



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Lab ID: K1611165-017A

Client Sample ID: MW-L16

Collection Date: 11/15/16 13:35

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2122.D

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 20:02	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 20:02	
cis-1,2-Dichloroethene	0.17 J	0.50	0.10	µg/L	1	11/18/16 20:02	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 20:02	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 20:02	
Trichloroethene	3.00	0.50	0.10	µg/L	1	11/18/16 20:02	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 20:02	
Surr: 1,2-Dichloroethane-d4	107	75-130	0.16	%REC	1	11/18/16 20:02	
Surr: Toluene-d8	104	75-125	0.10	%REC	1	11/18/16 20:02	
Surr: 4-Bromofluorobenzene	107	75-125	0.10	%REC	1	11/18/16 20:02	

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796788

Project Supervisor: David J Prichard



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: WATER Q

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Lab ID: K1611165-018A

Client Sample ID: *Trip Blank*

Collection Date: 09/13/16 0:00

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2127.D

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 22:46	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 22:46	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 22:46	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 22:46	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 22:46	
Trichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 22:46	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 22:46	
Surr: 1,2-Dichloroethane-d4	104	75-130	0.16	%REC	1	11/18/16 22:46	
Surr: Toluene-d8	101	75-125	0.10	%REC	1	11/18/16 22:46	
Surr: 4-Bromofluorobenzene	105	75-125	0.10	%REC	1	11/18/16 22:46	

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796793

Project Supervisor: David J Prichard



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087 Annual

W Order: K1611165

Matrix: EQUIPMENT BLANK

Inst. ID: MS04_73

Sample Size 10 mL

ColumnID: Rtx-VMS

%Moisture:

Revision: 12/02/16 15:45

TestCode: 8260W

Lab ID: K1611165-019A

Client Sample ID: *Equipment Blank*

Collection Date: 11/15/16 14:30

Date Received: 11/16/16 17:05

PrepDate:

R30519

BatchNo:

FileID: 1-SAMP-R2128.D

Col Type:

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 23:19	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 23:19	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 23:19	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 23:19	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 23:19	
Trichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 23:19	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 23:19	
Surr: 1,2-Dichloroethane-d4	106	75-130	0.16	%REC	1	11/18/16 23:19	
Surr: Toluene-d8	103	75-125	0.10	%REC	1	11/18/16 23:19	
Surr: 4-Bromofluorobenzene	101	75-125	0.10	%REC	1	11/18/16 23:19	

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:50

796794

Project Supervisor: David J Prichard

GeoLogic NY, Inc.

CHAIN OF CUSTODY RECORD

K1611165

CLIENT: GeoLogic

SAMPLER NAME:

PROJECT: 210087 2016 Annual Sampling 1 of 2 C. T. Gabriel

SAMPLE LOCATION	DATE	TIME	SAMPLE TYPE			NO. of SAMPLES	ANALYSIS REQUIRED
			WATER	SOIL	AIR		
001 MW-1S	11-14	12:15	X			2	See Below
002 MW-1D	11-14	12:20	X			2	See Below
003 MW-2S	11-14	13:30	X			2	See Below
004 MW-4S	11-14	15:55	X			2	See Below
005 MW-4D	11-14	16:15	X			2	See Below
006 MW-5S	11-14	11:20	X			2	See Below
007 MW-5D	11-14	11:30	X			2	See Below
008 MW-6	11-15	12:35	X			2	See Below
009 MW-7	11-15	11:05	X			2	See Below
010 MW-8	11-15	14:15	X			2	See Below

Relinquished by: <i>C.T. Gabriel & GeoLogic NY Inc.</i>	Date <i>11-15-2016</i>	Time <i>1900</i>	Received by: <i>GeoLogic Sample Frig</i>	Date <i>11-15-2016</i>	Time <i>1500</i>
Relinquished by: <i>GeoLogic Sample Frig</i>	Date	Time	Received by: <i>Bill Donaldson</i>	Date <i>11-16-16</i>	Time <i>1455</i>
Relinquished by: <i>Bill Donaldson</i>	Date <i>11-16-16</i>	Time	Received for Lab by: <i>By Sam</i>	Date <i>11-16-16</i>	Time <i>17:05</i>

Method of Shipment: **LAB PICK-UP** X TEMP *30 ON ICE*

COMMENTS:

Sample Analysis (1 µg/L reporting limit)

EPA 8260B for

1,1,1-Trichloroethane

1,1-Dichloroethene

1,2-Dichloroethene

Trichloroethene

Tetrachloroethene

Vinyl Chloride

GeoLogic NY, Inc.

CHAIN OF CUSTODY RECORD

K1611 165

CLIENT: GeoLogic

SAMPLER NAME:

PROJECT: 210087 2016 Annual Sampling 2of 2 C. T. Gabriel

SAMPLE LOCATION	DATE	TIME	SAMPLE TYPE			NO. of SAMPLES	ANALYSIS REQUIRED
			WATER	SOIL	AIR		
011 MW-9	11-15	11:25	X			2	See Below
012 MW-10S	11-14	14:25	X			2	See Below
013 MW-10D	11-14	14:40	X			2	See Below
014 MW-11	11-15	10:45	X			2	See Below
015 MW-12S	11-15	9:20	X			2	See Below
016 MW-12D	11-15	9:30	X			2	See Below
017 MW-L16	11-15	13:35	X			2	See Below
018 Trip Blank	9-13	none	X			2	See Below
019 Equipment Blank	11-15	14:30	X			2	See Below
Relinquished by:		Date	Time	Received by:		Date	Time
C.T. Gabriel of GeoLogic NY Inc.		11-15-2016	1500	GeoLogic Sample Frig		11-15-2016	1500
Relinquished by:		Date	Time	Received by:		Date	Time
GeoLogic Sample Frig.				Bell Donatton		11-16-16	1455
Relinquished by:		Date	Time	Received for Lab by:		Date	Time
Bell Donatton		10-16-16					
Method of Shipment: <u>LAB PICK-UP</u> X <u>TEMP</u> <u>30C</u>							
COMMENTS: Sample Analysis (1 µg/L reporting limit) EPA 8260B for 1,1,1-Trichloroethane 1,1-Dichloroethene 1,2-Dichloroethene Trichloroethene Tetrachloroethene Vinyl Chloride							

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: **GEOLOGIC**

Date and Time Received: **11/16/2016 5:05:00 PM**

Work Order Number: **K1611165**

Received by: **gis**

Checklist completed by: JS 11-16-16
Initials Date

Reviewed by: JS 11/16/16
Initials Date

Delivery Method: Courier

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

Comments:

Corrective Action:



Life Science Laboratories, Inc.

5854 Butternut Drive
East Syracuse, NY 13057

(315) 445-1900

Tuesday, December 06, 2016

Mr. Christopher Gabriel
GeoLogic NY, Inc.
37 Copeland Ave.
Homer, NY 13077

TEL: 607 749-5000

Project: 210087

RE: Analytical Results

Order No.: K1611164

Dear Mr. Christopher Gabriel:

Life Science Laboratories, Inc. received 4 sample(s) on 11/16/2016 for the analyses presented in the following report. Sample results relate only to the samples as received by the laboratory.

Very truly yours,
Life Science Laboratories, Inc.

A handwritten signature in black ink, appearing to read "David J Prichard", is written over a horizontal line.

David J Prichard
Project Manager



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087

W Order: K1611164

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Lab ID: K1611164-001A

Client Sample ID: *Cascade*

Collection Date: 11/16/16 9:00

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2123.D

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 20:34	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 20:34	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 20:34	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 20:34	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 20:34	
Trichloroethene	0.65	0.50	0.10	µg/L	1	11/18/16 20:34	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 20:34	
Surr: 1,2-Dichloroethane-d4	109	75-130	0.16	%REC	1	11/18/16 20:34	
Surr: Toluene-d8	96	75-125	0.10	%REC	1	11/18/16 20:34	
Surr: 4-Bromofluorobenzene	104	75-125	0.10	%REC	1	11/18/16 20:34	

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:49

796789

Project Supervisor: David J Prichard



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087

W Order: K1611164

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Lab ID: K1611164-002A

Client Sample ID: *Tower Discharge*

Collection Date: 11/16/16 9:15

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2124.D

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 21:07	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 21:07	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 21:07	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 21:07	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 21:07	
Trichloroethene	1.46	0.50	0.10	µg/L	1	11/18/16 21:07	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 21:07	
Surr: 1,2-Dichloroethane-d4	109	75-130	0.16	%REC	1	11/18/16 21:07	
Surr: Toluene-d8	98	75-125	0.10	%REC	1	11/18/16 21:07	
Surr: 4-Bromofluorobenzene	104	75-125	0.10	%REC	1	11/18/16 21:07	

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:49

796790

Project Supervisor: David J Prichard



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087

W Order: K1611164

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Lab ID: K1611164-003A

Client Sample ID: *Tower Influent*

Collection Date: 11/16/16 9:25

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2125.D

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 21:40	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 21:40	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 21:40	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 21:40	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 21:40	
Trichloroethene	3.36	0.50	0.10	µg/L	1	11/18/16 21:40	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 21:40	
Surr: 1,2-Dichloroethane-d4	109	75-130	0.16	%REC	1	11/18/16 21:40	
Surr: Toluene-d8	96	75-125	0.10	%REC	1	11/18/16 21:40	
Surr: 4-Bromofluorobenzene	101	75-125	0.10	%REC	1	11/18/16 21:40	

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:49

796791

Project Supervisor: David J Prichard



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087

W Order: K1611164

Matrix: WATER Q

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/02/16 15:45

Col Type:

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Lab ID: K1611164-004A

Client Sample ID: *Trip Blank*

Collection Date: 09/13/16 0:00

Date Received: 11/16/16 17:05

PrepDate:

BatchNo: R30519

FileID: 1-SAMP-R2126.D

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	11/18/16 22:13	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	11/18/16 22:13	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 22:13	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	11/18/16 22:13	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 22:13	
Trichloroethene	ND	0.50	0.10	µg/L	1	11/18/16 22:13	
Vinyl chloride	ND	1.00	0.33	µg/L	1	11/18/16 22:13	
Surr: 1,2-Dichloroethane-d4	108	75-130	0.16	%REC	1	11/18/16 22:13	
Surr: Toluene-d8	95	75-125	0.10	%REC	1	11/18/16 22:13	
Surr: 4-Bromofluorobenzene	104	75-125	0.10	%REC	1	11/18/16 22:13	

Qualifiers:

* Value may exceed the Acceptable Level

E Value exceeds the instrument calibration range

J Analyte detected below the PQL

P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Practical Quantitation Limit (PQL)

S Spike Recovery outside accepted recovery limits

Print Date: 12/02/16 15:49

796792

Project Supervisor: David J Prichard

GeoLogic NY, Inc.

CHAIN OF CUSTODY RECORD

K1611164

CLIENT: GeoLogic

SAMPLERS NAME(S):

PROJECT: 210087

C. T. Gabriel

001
002
003
004

SAMPLE LOCATION	DATE	TIME	SAMPLE TYPE			NO. of SAMPLES	ANALYSIS REQUIRED
			WATER	SOIL	AIR		
Cascade	11-16	9:00	X			2	See Below
Tower Discharge	11-16	9:15	X			2	"
Tower Influent	11-16	9:25	X			2	"
Trip Blank	9-13		X			2	"

Relinquished by: <i>C. T. Gabriel & GeoLogic NY Inc.</i>	Date <i>11-16-2016</i>	Time <i>10:45</i>	Received by: <i>GeoLogic Sample Frig</i>	Date <i>11-16-2016</i>	Time <i>10:45</i>
Relinquished by: <i>GeoLogic Sample Frig</i>	Date	Time	Received by: <i>Bill Donalton</i>	Date <i>11-16-16</i>	Time <i>1455</i>
Relinquished by: <i>Bill Donalton</i>	Date <i>11-16-16</i>	Time <i>1</i>	Received for Lab by: <i>JS</i>	Date <i>11-16-16</i>	Time <i>17105</i>

Method of Shipment: LAB PICK-UP	TEMP <i>30C</i> <u>ON ICE</u>
--	-------------------------------

COMMENTS:

Sample Analysis (1 µg/L reporting limit)

EPA 8260B for

1,1,1-Trichloroethane

1,1-Dichloroethene

1,2-Dichloroethene

Trichloroethene

Tetrachloroethene

Vinyl Chloride

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: **GEOLOGIC**

Date and Time Received:

11/16/2016 5:05:00 PM

Work Order Number: **K1611164**

Received by:

gis

Checklist completed by:

Initials

73

Date

11-16-16

Reviewed by:

Initials

DD

Date

12/2/16

Delivery Method: Courier

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

Comments:

Corrective Action:



Life Science Laboratories, Inc.

5854 Butternut Drive
East Syracuse, NY 13057

(315) 445-1900

Thursday, December 29, 2016

Mr. Christopher Gabriel
GeoLogic NY, Inc.
37 Copeland Ave.
Homer, NY 13077

TEL: 607 749-5000

Project: 210087

RE: Analytical Results

Order No.: K1612259

Dear Mr. Christopher Gabriel:

Life Science Laboratories, Inc. received 4 sample(s) on 12/20/2016 for the analyses presented in the following report. Sample results relate only to the samples as received by the laboratory.

Very truly yours,
Life Science Laboratories, Inc.

A handwritten signature in black ink, appearing to read "David J. Prichard", is written over a horizontal line.

David J Prichard
Project Manager



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087

W Order: K1612259

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/29/16 13:20

Col Type:

Lab ID: K1612259-001A

Client Sample ID: *Cascade*

Collection Date: 12/19/16 14:30

Date Received: 12/20/16 16:50

PrepDate:

BatchNo: R30641

FileID: 1-SAMP-R2234.D

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	12/22/16 17:55	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	12/22/16 17:55	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	12/22/16 17:55	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	12/22/16 17:55	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	12/22/16 17:55	
Trichloroethene	0.78	0.50	0.10	µg/L	1	12/22/16 17:55	
Vinyl chloride	ND	1.00	0.33	µg/L	1	12/22/16 17:55	
Surr: 1,2-Dichloroethane-d4	107	75-130	0.16	%REC	1	12/22/16 17:55	
Surr: Toluene-d8	100	75-125	0.10	%REC	1	12/22/16 17:55	
Surr: 4-Bromofluorobenzene	100	75-125	0.10	%REC	1	12/22/16 17:55	

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

Print Date: 12/29/16 13:21

807447

Project Supervisor: David J Prichard



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087

W Order: K1612259

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/29/16 13:20

Col Type:

Lab ID: K1612259-002A

Client Sample ID: *Tower Discharge*

Collection Date: 12/19/16 14:45

Date Received: 12/20/16 16:50

PrepDate:

BatchNo: R30641

FileID: I-SAMP-R2235.D

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	12/22/16 18:28	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	12/22/16 18:28	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	12/22/16 18:28	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	12/22/16 18:28	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	12/22/16 18:28	
Trichloroethene	2.07	0.50	0.10	µg/L	1	12/22/16 18:28	
Vinyl chloride	ND	1.00	0.33	µg/L	1	12/22/16 18:28	
Surr: 1,2-Dichloroethane-d4	104	75-130	0.16	%REC	1	12/22/16 18:28	
Surr: Toluene-d8	100	75-125	0.10	%REC	1	12/22/16 18:28	
Surr: 4-Bromofluorobenzene	102	75-125	0.10	%REC	1	12/22/16 18:28	

Qualifiers:

- * Value may exceed the Acceptable Level
- E Value exceeds the instrument calibration range
- J Analyte detected below the PQL
- P Prim./Conf. column %D or RPD exceeds limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Practical Quantitation Limit (PQL)
- S Spike Recovery outside accepted recovery limits

Print Date: 12/29/16 13:21

807448

Project Supervisor: David J Prichard



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087

W Order: K1612259

Matrix: WATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/29/16 13:20

Col Type:

Lab ID: K1612259-003A

Client Sample ID: *Tower Influent*

Collection Date: 12/19/16 14:55

Date Received: 12/20/16 16:50

PrepDate:

BatchNo: R30641

FileID: 1-SAMP-R2236.D

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	12/22/16 19:00	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	12/22/16 19:00	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	12/22/16 19:00	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	12/22/16 19:00	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	12/22/16 19:00	
Trichloroethene	3.70	0.50	0.10	µg/L	1	12/22/16 19:00	
Vinyl chloride	ND	1.00	0.33	µg/L	1	12/22/16 19:00	
Surr: 1,2-Dichloroethane-d4	105	75-130	0.16	%REC	1	12/22/16 19:00	
Surr: Toluene-d8	100	75-125	0.10	%REC	1	12/22/16 19:00	
Surr: 4-Bromofluorobenzene	102	75-125	0.10	%REC	1	12/22/16 19:00	

Qualifiers:

* Value may exceed the Acceptable Level
E Value exceeds the instrument calibration range
J Analyte detected below the PQL
P Prim./Conf. column %D or RPD exceeds limit

B Analyte detected in the associated Method Blank
H Holding times for preparation or analysis exceeded
ND Not Detected at the Practical Quantitation Limit (PQL)
S Spike Recovery outside accepted recovery limits

Print Date: 12/29/16 13:21

807449

Project Supervisor: David J Prichard



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT GeoLogic NY, Inc.

Project: 210087

W Order: K1612259

Matrix: WATER Q

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 12/29/16 13:20

Col Type:

Lab ID: K1612259-004A

Client Sample ID: *Trip Blank*

Collection Date: 09/13/16 0:00

Date Received: 12/20/16 16:50

PrepDate:

BatchNo: R30641

FileID: 1-SAMP-R2237.D

Sample Size 10 mL

%Moisture:

TestCode: 8260W

Analyte	Result	Qual	PQL	MDL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS				SW8260C/5030C			
1,1,1-Trichloroethane	ND	0.50	0.10	µg/L	1	12/22/16 19:33	
1,1-Dichloroethene	ND	0.50	0.16	µg/L	1	12/22/16 19:33	
cis-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	12/22/16 19:33	
Tetrachloroethene	ND	0.50	0.10	µg/L	1	12/22/16 19:33	
trans-1,2-Dichloroethene	ND	0.50	0.10	µg/L	1	12/22/16 19:33	
Trichloroethene	ND	0.50	0.10	µg/L	1	12/22/16 19:33	
Vinyl chloride	ND	1.00	0.33	µg/L	1	12/22/16 19:33	
Surr: 1,2-Dichloroethane-d4	106	75-130	0.16	%REC	1	12/22/16 19:33	
Surr: Toluene-d8	100	75-125	0.10	%REC	1	12/22/16 19:33	
Surr: 4-Bromofluorobenzene	101	75-125	0.10	%REC	1	12/22/16 19:33	

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits

Print Date: 12/29/16 13:26

807450

Project Supervisor: David J Prichard

GeoLogic NY, Inc.

CHAIN OF CUSTODY RECORD

K1612259

CLIENT: GeoLogic
PROJECT: 210087

SAMPLERS NAME(S):
C. T. Gabriel

001
002
003
004

SAMPLE LOCATION	DATE	TIME	SAMPLE TYPE			NO. of SAMPLES	ANALYSIS REQUIRED
			WATER	SOIL	AIR		
Cascade	12-19	14:30	X			2	See Below
Tower Discharge	12-19	14:45	X			2	"
Tower Influent	12-19	14:55	X			2	"
Trip Blank	9-13		X			2	"

Relinquished by: <i>GeoLogic</i>	Date 12-19-2016	Time 1545	Received by: <i>GeoLogic Sample Frig</i>	Date 12-19-2016	Time 1545
Relinquished by: <i>GeoLogic Sample Frig</i>	Date	Time	Received by: <i>Bill Donalson</i>	Date 12-20-16	Time 9:20
Relinquished by: <i>Bill Donalson</i>	Date 12-20-16	Time	Received for Lab by: <i>Q, S</i>	Date 12-20-16	Time 16:50

Method of Shipment: **LAB PICK-UP** X TEMP 0.4°C

Samples Received

COMMENTS:

On Ice

Sample Analysis (1 µg/L reporting limit)

EPA 8260B for

1,1,1-Trichloroethane

1,1-Dichloroethene

1,2-Dichloroethene

Trichloroethene

Tetrachloroethene

Vinyl Chloride

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: **GEOLOGIC**

Date and Time Received: **12/20/2016 4:50:00 PM**

Work Order Number: **K1612259**

Received by: **gis**

Checklist completed by:
Initials Date

Reviewed by:
Initials Date

Delivery Method: Courier

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

Comments:

Corrective Action:

APPENDIX F

SSD/SVE ANALYTICAL RESULTS FROM THE 2016 SAMPLING EVENT



CENTEK LABORATORIES, LLC

143 Midler Park Drive * Syracuse, NY 13206

Phone (315) 431-9730 * Emergency 24/7 (315) 416-2752

NYSDOH ELAP

Certificate No. 11830

Analytical Report

Chris Gabriel
GeoLogic NY, Inc.
37 Copeland Ave.
Homer, NY 13077

Tuesday, November 22, 2016
Order No.: C1611047

TEL: 607-749-5000
FAX 607-749-5063
RE: 210087

Dear Chris Gabriel:

Centek Laboratories, LLC received 1 sample(s) on 11/16/2016 for the analyses presented in the following report.

I certify that this data package is in compliance with the terms and conditions of the Contract, both technically and for completeness. Release of the data contained in this hardcopy data package and/or in the computer readable data submitted has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Centek Laboratories performs all analyses according to EPA, NIOSH or OSHA-approved analytical methods. Centek Laboratories is dedicated to providing quality analyses and exceptional customer service. All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objective except as indicated in the case narrative. All samples were received and analyzed within the EPA recommended holding times. Test results are not Method Blank (MB) corrected for contamination.

We do our best to make our reporting format clear and understandable and hope you are thoroughly satisfied with our services. Please contact your client service representative at (315) 431-9730 or myself, if you would like any additional information regarding this report.

Thank you for using Centek Laboratories. This report can not be reproduced except in its entirety, without prior written authorization.

Sincerely,

William Dobbin
Lead Technical Director

Disclaimer: The test results and procedures utilized, and laboratory interpretations of the data obtained by Centek as contained in this report are believed by Centek to be accurate and reliable

for sample(s) tested. In accepting this report, the customer agrees that the full extent of any and all liability for actual and consequential damages of Centek for the services performed shall be equal to the fee charged to the customer for the services as liquidated damages. ELAP does not offer certification for the following parameters by this method at present time, they are: 4-ethyltoluene, ethyl acetate, propylene, tetrahydrofuran, 4-PCH, sulfur derived and silicon series compounds.

Centek Laboratories, LLC Terms and Conditions

Sample Submission

All samples sent to Centek Laboratories should be accompanied by our Request for Analysis Form or Chain of Custody Form. A Chain of Custody will be provided with each order shipped for all sampling events, or if needed, one is available at our website www.CentekLabs.com. Samples received after 3:00pm are considered to be a part of the next day's business.

Sample Media

Samples can be collected in an canister or a Tedlar bag. Depending on your analytical needs, Centek Laboratories may receive a bulk, liquid, soil or other matrix sample for headspace analysis.

Blanks

Every sample is run with a surrogate or tracer compound at a pre-established concentration. The surrogate compound run with each sample is used as a standard to measure the performance of each run of the instrument. If required, a Minican can be provided containing nitrogen to be run as a trip blank with your samples.

Sampling Equipment

Centek Laboratories will be happy to provide the canisters to carry-out your sampling event at no charge. The necessary accessories, such as regulators, tubing or personal sampling belts, are also provided to meet your sampling needs. The customer is responsible for all shipping charges to the client's destination and return shipping to the laboratory. Client assumes all responsibility for lost, stolen and any damages of equipment.

Turn Around time (TAT)

Centek Laboratories will provide results to its clients in one business-week by 6:00pm EST after receipt of samples. For example, if samples are received on a Monday they are due on the following Monday by 6:00pm EST. Results are faxed or emailed to the requested location indicated on the Chain of Custody. Non-routine analysis may require more than the one business-week turnaround time. Please confirm non-routine sample turnaround times.

Reporting

Results are emailed or faxed at no additional charge. A hard copy of the result report is mailed within 24 hours of the faxing or emailing of your results. Cat "B" like packages are within 3-4 weeks from time of analysis. Standard Electronic Disk Deliverables (EDD) is also available at no additional charge.

Payment Terms

Payment for all purchases shall be due within 30 days from date of invoice. The client agrees to pay a finance charge of 1.5% per month on the overdue balance and cost of collection, including attorney fees, if collection proceedings are necessary. You must have a completed credit

application on file to extend credit. Purchase orders or checks information must be submitted for us to release results

Rush Turnaround Samples

Expedited turn around times is available. Please confirm rush turnaround times with Client Services before submitting samples.

Applicable Surcharges for Rush Turnaround Samples:

Same day TAT = 200%

Next business day TAT by Noon = 150%

Next business day TAT by 6:00pm = 100%

Second business day TAT by 6:00pm = 75%

Third business day TAT by 6:00pm = 50%

Fourth business day TAT by 6:00pm = 35%

Fifth business day = Standard

Statement of Confidentiality

Centek Laboratories, LLC is aware of the importance of the confidentiality of results to many of our clients. Your name and data will be held in the strictest of confidence. We will not accept business that may constitute a conflict of interest. We commonly sign Confidential Nondisclosure Agreements with clients prior to beginning work. All research, results and reports will be kept strictly confidential. Secrecy Agreements and Disclosure Statements will be signed for the client if so specified. Results will be provided only to the addressee specified on the Chain of Custody Form submitted with the samples unless law requires release. Written permission is required from the addressee to release results to any other party.

Limitation on Liability

Centek Laboratories, LLC warrants the test results to be accurate to the methodology and sample type for each sample submitted to Centek Laboratories, LLC. In no event shall Centek Laboratories, LLC be liable for direct, indirect, special, punitive, incidental, exemplary or consequential damages, or any damages whatsoever, even if Centek Laboratories, LLC has been previously advised of the possibility of such damages whether in an action under contract, negligence, or any other theory, arising out of or in connection with the use, inability to use or performance of the information, services, products and materials available from the laboratory or this site. These limitations shall apply notwithstanding any failure of essential purpose of any limited remedy. Because some jurisdictions do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of liability for consequential or incidental damages, the above limitations may not apply to you. This is a comprehensive limitation of liability that applies to all damages of any kind, including (without limitation) compensatory, direct, indirect or consequential damages, loss of data, income or profit and or loss of or damage to property and claims of third parties.



CEN TEK LABORATORIES, LLC

Date: 29-Nov-16

CLIENT: GeoLogic NY, Inc.

Project: 210087

Lab Order: C1611047

CASE NARRATIVE

Samples were analyzed using the methods outlined in the following references:

Centek Laboratories, LLC SOP TS-80

Compendium of Methods for the Determination of Toxic Organic Compounds, Compendium Method TO-15, January 1999

All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objective except as indicated in the corrective action report(s). All samples were received and analyzed within the EPA recommended holding times. Test results are not Method Blank (MB) corrected for contamination.

NYSDEC ASP samples:

Canisters should be evacuated to a reading of less than or equal to 50 millitorr prior to shipment to sampling personnel. The vacuum in the canister will be field checked prior to sampling, and must read 28" of Hg (± 2 ", vacuum, absolute) before a sample can be collected. After the sample has been collected, the pressure of the canister will be read and recorded again, and must be 5" of Hg (± 1 ", vacuum, absolute) for the sample to be valid. Once received at the laboratory, the canister vacuum should be confirmed to be 5" of Hg, ± 1 ". Please record and report the pressure/vacuum of received canisters on the sample receipt paperwork. A pressure/vacuum reading should also be taken just prior to the withdrawal of sample from the canister, and recorded on the sample preparation log sheet. All regulators are calibrated to meet these requirements before they leave the laboratory. However, due to environmental conditions and use of the equipment Centek can not guarantee that this criteria can always be achieved.



CENTEK LABORATORIES, LLC

Sample Receipt Checklist

Client Name **GEOLOGIC**

Date and Time Receive

11/16/2016

Work Order Number **C1611047**

Received by

JDS

Checklist completed by

Signature

Date

Reviewed by

Initials

Date

Matrix:

Carrier name

Drop Off

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Present ☒

Custody seals intact on sample bottles?

Yes ☐

No ☐

Not Present ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - pH acceptable upon receipt?

Yes ☐

No ☒

Adjusted?

Checked b

Any No and/or NA (not applicable) response must be detailed in the comments section below

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action



CENTEK LABORATORIES, LLC

Date: 29-Nov-16

CLIENT: GeoLogic NY, Inc.
Project: 210087
Lab Order: C1611047

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
C1611047-001A	SSD/SVE	1427	11/15/2016	11/16/2016

Lab Order: C1611047
Client: GeoLogic NY, Inc.
Project: 210087

DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
C1611047-001A	SSD/SVE	11/15/2016	Air	5ppb by Method TO15			11/17/2016
				5ppb by Method TO15			11/17/2016

Centek Laboratories, LLC**Date:** 22-Nov-16

CLIENT: GeoLogic NY, Inc.
Lab Order: C1611047
Project: 210087
Lab ID: C1611047-001A

Client Sample ID: SSD/SVE
Tag Number: 1427
Collection Date: 11/15/2016
Matrix: AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
FIELD PARAMETERS		FLD		Analyst:		
Lab Vacuum In	-1			"Hg		11/16/2016
Lab Vacuum Out	-30			"Hg		11/16/2016
5PPB BY METHOD TO15		TO-15		Analyst: WD		
1,1,1-Trichloroethane	< 5.0	5.0		ppbV	1	11/17/2016 8:40:00 PM
1,1-Dichloroethene	< 5.0	5.0		ppbV	1	11/17/2016 8:40:00 PM
cis-1,2-Dichloroethene	19	5.0		ppbV	1	11/17/2016 8:40:00 PM
Tetrachloroethylene	< 5.0	5.0		ppbV	1	11/17/2016 8:40:00 PM
trans-1,2-Dichloroethene	< 5.0	5.0		ppbV	1	11/17/2016 8:40:00 PM
Trichloroethene	410	25		ppbV	5	11/17/2016 9:14:00 PM
Vinyl chloride	< 5.0	5.0		ppbV	1	11/17/2016 8:40:00 PM
Surr: Bromofluorobenzene	78.0	73.7-124		%REC	1	11/17/2016 8:40:00 PM

Qualifiers:	**	Quantitation Limit	.	Results reported are not blank corrected
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S	Spike Recovery outside accepted recovery limits		

Centek Laboratories, LLC**Date:** 22-Nov-16**CLIENT:** GeoLogic NY, Inc.**Client Sample ID:** SSD/SVE**Lab Order:** C1611047**Tag Number:** 1427**Project:** 210087**Collection Date:** 11/15/2016**Lab ID:** C1611047-001A**Matrix:** AIR

Analyses	Result	**Limit	Qual	Units	DF	Date Analyzed
5PPB BY METHOD TO15		TO-15		Analyst: WD		
1,1,1-Trichloroethane	< 27	27		ug/m3	1	11/17/2016 8:40:00 PM
1,1-Dichloroethene	< 20	20		ug/m3	1	11/17/2016 8:40:00 PM
cis-1,2-Dichloroethene	74	20		ug/m3	1	11/17/2016 8:40:00 PM
Tetrachloroethylene	< 34	34		ug/m3	1	11/17/2016 8:40:00 PM
trans-1,2-Dichloroethene	< 20	20		ug/m3	1	11/17/2016 8:40:00 PM
Trichloroethene	2200	130		ug/m3	5	11/17/2016 9:14:00 PM
Vinyl chloride	< 13	13		ug/m3	1	11/17/2016 8:40:00 PM

Qualifiers:	**	Quantitation Limit	.	Results reported are not blank corrected
	B	Analyte detected in the associated Method Blank	E	Estimated Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limit
	JN	Non-routine analyte. Quantitation estimated.	ND	Not Detected at the Limit of Detection
	S	Spike Recovery outside accepted recovery limits		