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## **PERIODIC REVIEW REPORT – NO. 3**

**Former Pizza Hut  
2137 Seneca Street  
Buffalo, New York 14210**

**NYSDEC Site No. V00370-9**

**Project Number: 07.007684/001**

**Prepared For:**



**NEW YORK STATE DEPARTMENT  
OF ENVIRONMENTAL CONSERVATION**  
Division of Environmental Remediation  
625 Broadway  
Albany, New York 12233

and



Creative Structures Services, Inc.  
1659 Amherst Street  
Buffalo, New York 14214

**Report Date:** February 28, 2015

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## 1.0 EXECUTIVE SUMMARY

As authorized by Mr. David Pawlik (Owner) on behalf of 2137 Seneca Street, LLC, Quality Inspection Services, Inc. - An Applus RTD Company (QISI) has completed a Periodic Review Report (PRR) of a parcel of land addressed at 2137 Seneca Street, Buffalo (Erie County), New York (Site). The PRR was completed in general conformance with the Site Management Plan (SMP) prepared by URS, Inc. and dated May 25, 2011 for New York State Department of Environmental Conservation (NYSDEC) Volunteer Clean-up Program Site #V00370-9.

Historical use of the Site indicated that previous uses of the Site include residential dwellings, a pharmacy, a retail tire establishment, automotive service building, offices, a dry cleaning establishment, and former restaurants (i.e., Pizza Hut and Wendy's). Dry cleaning chemicals (namely Tetrachloroethene or PCE) were presumably released to the environment from the aforementioned dry-cleaning establishment resulting in impacted soil and groundwater.

The Site has undergone several remediation activities between 2003 and 2009 with the approval of NYSDEC. Approximately 726-tons of excess overburden soil/fill was excavated and transported off-site for disposal as part of the remedial activities. The Site was restored post-remediation and was developed with a commercial-retail facility operated as a Dollar General store. The NYSDEC-approved Site Management Plan requires continued certification of the Site Institutional and Engineering Controls and implementation of a Groundwater Monitoring Program.

During the monitoring period commencing March 2014, the following tasks of the SMP were completed:

- Institutional and Engineering (IC/EC) Controls were maintained as certified by the Owner;
- A Site-wide inspection was completed of the Cover System; and
- Groundwater Monitoring was completed.

No failures were noted associated with the Cover System.

Recommendations: None.

In addition, the results of the Groundwater Monitoring Program indicate that elevated levels of total chlorinated volatile organic compounds (CVOCs) associated with PCE and its potential breakdown products (TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, 1,1-DCA, and Vinyl Chloride) were detected in monitoring well MW-4 (6.112 mg/l), at concentrations above the NYSDEC-mandated Standards, Criteria, and Guidelines (SCG) value of 1 milligram/liter (mg/L). The analytical results of downgradient perimeter wells were below the NYSDEC-mandated SCG concentration of 1 milligram per liter (mg/L), except at monitoring well MW-11 (2.900 mg/l) and PZ-A (4.304 mg/l). It should be noted that PCE degradation CVOCs were detected in deep monitoring well MW-4A and included vinyl chloride (0.1500 ppm) and cis-1,2-Dichloroethene (0.0890 ppm).

Recommendation: Continued Groundwater Monitoring is required as stipulated in the VCP agreement until the NYSDEC-mandated SCG is attained. Once attained, four (4) additional Quarters of Groundwater Monitoring will be required.

## **2.0 Site Overview**

### **2.1 Location**

The Site is located in an urban area in the City of Buffalo, County of Erie, New York. The current Site address is 2137 Seneca Street, which is identified as Parcel Number 133.26-7-1.1 on the City of Buffalo Tax Map. The Site is an approximately 0.5-acre area bounded by Seneca Street to the northeast and Kingston Place to the northwest. Commercial properties are located adjacent to the Site along Seneca Street (northeast, northwest, and southeast) and residential properties border the rear of the Site along Kingston Avenue (southwest) (Figure 1 and 2).

The Site is currently occupied by an active, single-story commercial building that faces Seneca Street and an asphalt-paved parking lot that covers the remainder of the property around the building. The current building is built for use as a Dollar General (discount store) since 2013.

### **2.2 Site History and Remediation**

Historical use of the Site was summarized by Conestoga Rovers and Associates (CRA) in the associated Final Site Investigation Report and Feasibility Study (SI/FS Report), dated March 31, 2003. This report indicated that previous uses of the Site include residential dwellings, a pharmacy, a retail tire establishment, automotive service building, offices, a dry cleaning establishment, and former restaurants (i.e., Pizza Hut and Wendy's). According to historic business listings (CRA SI/FS Report), buildings facing Seneca Street included the dry cleaning establishment at 2141 Seneca Street (northeast corner of the property) from the 1950s until construction of the former Pizza Hut/Wendy's building in 1982. Dry cleaning chemicals (namely Tetrachloroethene or PCE) were presumably released to the environment from the aforementioned dry-cleaning establishment resulting in impacted soil and groundwater.

A Phase II environmental site investigation (ESI) performed by the Fourth River Company of Pittsburgh, Pennsylvania (FRC) in 1999, first identified the presence of PCE on-Site. Franchise Finance Corporation of America (FFCA – merged with GE Capital Franchise Finance Corporation (GEFF) in 2001), a former Owner, and the New York State Department of Environmental Conservation (NYSDEC) enrolled into the NYSDEC Voluntary Clean-up Program (VCP) in 2000 as the then-noted Volunteer, and the site was assigned the VCP number V00370-9. Several investigations and sampling events were conducted by between 1999 and 2002 before remedial action for the soil was conducted in 2003 and of the groundwater in April 2004 and November 2009. [The current Site Owner is 2137 Seneca Street LLC, which has developed the site as a Dollar General commercial-retail store.]

The Site has undergone several remediation activities between 2003 and 2009 with the approval of NYSDEC. The following is a summary of the Remedial Actions performed at the Site:

- Excavation of soil/fill in the northern portion of the Site that exceeded NYSDEC Technical Administrative Guidance Memorandum (TAGM) #4046 Standards, Criteria, and Guidelines (SCGs) to the extent practicable; advancing vertically to the top of the water table (approximately 10 feet bgs) and horizontally to the property boundary or structures whose integrity would be compromised;
- Construction and maintenance of a soil cover system consisting of vegetative soil or asphalt pavement overlying limestone aggregate backfill to prevent human exposure to remaining contaminated soil/fill remaining at depths below 6 feet under the Site;
- Execution and recording of the Declaration to restrict land use and prevent future risks of exposure, if any, to any residual contamination remaining at the Site;

- Installation of an in-situ groundwater treatment system in the northern portion of the Site comprising a series of injection wells and injection gallery piping connected to service boxes through a network of shallow subsurface feeding lines;
- Implementation of four In-Situ Chemical Oxidation (ISCO) applications to the shallow and deep groundwater utilizing the aforementioned treatment system under gravity flow conditions between April 2004 and May 2005;
- Implementation of three applications of both abiotic and biotic reductive dehalogenation remediation amendments within the shallow groundwater in the northern corner of the Site between September 2007 and November 2009. These full-scale events included the injection of zero-valent iron (ZVI) and either Hydrogen-releasing Compound (HRC)® or EHC® after pathway development within the subsurface using pneumatic and limited hydraulic fracturing;
- Development and implementation of a Soil Management Plan (SMP) for long-term management of Remaining Contamination as required by the Declaration, which includes plans for IC and EC Plans; monitoring, operation and maintenance (if needed); and reporting.
- Completion of a Construction Closeout Report (CCR), on behalf of 2137 Seneca, LLC, to summarize the post-remedial redevelopment activities at the Site. Post remedial activities included the following:
  - Demolition of former restaurant building, with off-site disposal and or recycling of waste streams. Approximately 726-tons of excess overburden soil/fill was excavated and transported off-site for disposal, including 627-tons at WM – Chaffee Landfill in Chaffee, New York and 99-tons at Modern Landfill in Model City, New York
  - Decommissioning of thirty-six (36) former monitoring wells and piezometers, in accordance with NYSDEC CP-43 guidelines;
  - Installation of a passive sub-slab vapor depressurization system within the newly constructed commercial building (i.e., Dollar General);
  - Placement and compaction of clean backfill material. Approximately 965.5-tons of approved backfill material was placed on-Site including, approximately 877.5 tons of 2" ROC from Buffalo Crushed Stone Wehrle, and approximately 88-tons of 2" recycled material from Buffalo Recycled Aggregate, LLC; and,
  - Construction of a new 9,100 square foot commercial building, parking areas, and landscaping.

### **2.3 Remaining Contamination**

Based on the analytical data collected to-date, contaminant concentrations have been significantly reduced; however, Remaining Contamination was still detected in the subsurface on-Site by URS, Inc. as of May 2011. As previously reported to the NYSDEC, the results of the remedial investigations, as well as the confirmatory soil sampling and progress groundwater monitoring conducted after the remedial efforts, were performed to evaluate the Remaining Contamination present on-Site.

The groundwater contaminant data since January 2006, as previously reported by URS, Inc., confirm that the application of abiotic and biotic reductive dehalogenation remediation technologies has been successful in reducing the PCE concentration breakdown products (cis-1,2-dichloroethene [cis-1,2-DCE] and vinyl chloride, respectively) on-Site. The chlorinated volatile organic compound (CVOC) contaminant mass on-Site is reportedly dominated by the third-order breakdown product vinyl chloride, indicating that reductive dehalogenation pathway of PCE is nearly completed.

## **2.4 Existing Groundwater Monitoring System**

According to the URS SMP, groundwater monitoring results have demonstrated that residual groundwater concentrations are consistently below or near the NYSDEC-defined SCG and have demonstrated significant stability at low levels in the perimeter wells.

Groundwater monitoring of five shallow wells within the immediate vicinity of the remediated impact area will continue on a semi-annual basis until the reported total CVOC concentration at all monitored wells drops below the NYSDEC-defined SCG. The five shallow wells include MW-2, MW-4, MW-11, MW-13, and PZ-A. In addition, deep well MW-4A is also monitored. The locations of the wells are presented on Figure 3.

Monitoring well MW-4 still contains CVOCs at levels exceeding the NYSDEC-defined SCG, but at levels less than in November 2013. The analytical results of downgradient perimeter wells MW-11 and MW-13 indicate an increase of CVOC degradation by-products of PCE chiefly associated with vinyl chloride and/or cis-1,2-Dichloroethene (refer to the URS SMP report dated May 25, 2011). Well PZ-A reported a decrease in total CVOCs as compared to November 2013.

## **2.5 Clean-up Goals**

According to the SMP report, the remedial goal of reducing groundwater CVOCs to the NYSDEC-mandated concentration of 1 milligram per liter (mg/L) or part per million (ppm) or less on-Site has substantially been achieved. Isolated temporary spikes in CVOC concentrations have been reported specifically in monitoring well MW-4 (Figure 3) chiefly associated with PCE degradation products.

Once the monitoring objectives have been achieved, the current Owner (i.e., 2137 Seneca Street LLC) will perform at least three more groundwater monitoring events (four quarters total) to confirm that the monitoring results report a cumulative CVOC concentration (i.e., summation of PCE and its breakdown products TCE, 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride) of less than 1 mg/L in each on-Site well. Once the quarterly monitoring has demonstrated that the total CVOC concentrations on-Site are at 1 mg/L or below, the Owner will notify NYSDEC, discontinue groundwater monitoring, and initiate the decommissioning of the monitoring wells. The Owner will not initiate the well decommissioning activities without NYSDEC's consent. Well decommissioning will be in accordance with NYSDEC guidance.

## **2.6 Institutional/Engineering Control Verification**

### **2.6.1 Verification of Site Details**

As per the NYSDEC Site Management Periodic Review (PRR) Notice, Institutional Controls (IC) and Engineering Controls (EC) Certification process, the Owner (i.e., 2137 Seneca Street LLC) is required to verify Site details on an annual basis until closure of the VCP Agreement is satisfied.

### **2.6.2 Institutional Controls Certification**

As per the NYSDEC Site Management Periodic Review (PRR) Notice, Institutional Controls (IC) and Engineering Controls (EC) Certification process, the Owner (i.e., 2137 Seneca Street LLC) is required to verify that all existing site controls are still applicable. The following ICs are listed for the Site:

- Groundwater Use Restriction
- Land-use Restriction
- Monitoring Plan
- Site Management Plan (SMP)

The Declaration of Covenants and Restrictions prohibits the site from being used for anything other than industrial or commercial purposes, excluding day care, child care and medical care uses. The use of the groundwater underlying the site is also prohibited without proper treatment.

The Owner has certified that the IC/EC are applicable (refer to Appendix B - Institutional Controls (IC) and Engineering Controls (EC) Certification).

### **2.6.3 Engineering Controls Certification**

As per the NYSDEC Site Management Periodic Review (PRR) Notice, Institutional Controls (IC) and Engineering Controls (EC) Certification process, the Owner (i.e., 2137 Seneca Street LLC) is required to verify that all existing site controls are still applicable.

The following EC are listed for the Site:

- Cover System Inspection

The soil cover system is a permanent, passive control that includes clean soil cover/cap in landscaped areas, asphalt covered/paved parking, and throughways, and concrete covered sidewalks that is integrated into the current use of the property. The current cover system is expected to remain in-place in perpetuity with routine maintenance (i.e., landscaping maintenance, asphalt pavement sealing and repair, municipal inspection of sidewalks and associated repair) expected with Site use.

The cover system monitoring will be conducted annually in the spring or early summer season and will involve a visual walk-over inspection of the Site. Additional inspections will be required after any redevelopment of the property that involves removal and replacement of any section of the pavement, including excavations. Unscheduled inspections may take place when a suspected failure in the cover system has been reported or an emergency occurs that is deemed likely to affect the operation of the system.

The visual inspection will involve an evaluation of the integrity of the following features on-Site:

- a) The sidewalk along Kingston Place and Seneca Street;
- b) The landscaped area between the northwestern edge of the parking lot and the sidewalk along Kingston Place;
- c) The asphalt pavement parking lot surrounding the current building;
- d) The landscaped area in front (northeast) of the current building.

A complete list of components to be checked is provided in the Inspection Checklist, presented in Appendix B-2. For landscaped areas, observations including areas of deterioration, water erosion, subsidence, or ponding will be documented on the inspection form and evaluated. For paved areas (i.e., asphalt, sidewalk), separation cracks or vertical off-sets that are greater than one-half inch shall be documented and sealed or repaired.

If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs, an inspection of the Site will be conducted within 5 days of the event to verify the effectiveness of the EC/ICs implemented at the Site by a qualified environmental professional as determined by NYSDEC.

As a requirement of the EC Certification, a New York State Professional Engineer (NYSPE) is required to sign the appropriate Certification Form. Such is provided in Appendix B-1.



### **3.0 Media Monitoring Program**

SMP activities include monitoring of groundwater remediation progress and contingency monitoring of Soil Vapor Intrusion (SVI) potential. Groundwater monitoring includes well development and sampling activities at monitoring wells noted in Section 2.4.

The contingency SVI monitoring has not been completed as the requirements for such monitoring have not yet been developed by the Owner or approved by the NYSDEC. At present, a passive sub-slab vapor depressurization system has been installed within the newly constructed commercial building (i.e., Dollar General). An evaluation of the need for implementing an active system has not been implemented for the Site. If required based on available soil and/or groundwater monitoring data, the SVI will identify the SVI risk present for the building occupation and outline a program necessary for monitoring and/or mitigating the risk, if present.

#### **3.1 Groundwater Progress Monitoring**

Groundwater progress monitoring was conducted to assess the performance of the remedial activities as the groundwater concentrations approach the remedial goal of 1 part-per-million (ppm) in each of the on-site monitoring wells serving as the monitoring program wells (refer to Section 2.4).

In as much as there are no active potable water supply wells on-Site or off-Site that are withdrawing groundwater from the VOC-contaminated groundwater zone, there is no significant risk posed to public health due to the detection of part per- billion (ppb) concentrations of CVOCs in groundwater in the vicinity of the Site. In addition, there appears to be no significant future risk to human health given the unlikely potential for future potable use of the shallow aquifer underlying the Site.

To confirm that groundwater has achieved the site-specific remedial goal, monitoring wells have been established that include up-gradient well MW-2, down-gradient wells MW-4, MW- 13, MW-11, and PZ-A, and deep well MW-4A, as illustrated on Figure 3. These wells were previously selected based on the historic groundwater concentrations. Monitoring well MW-2 is also included to confirm up-gradient to cross-gradient concentrations.

Groundwater progress monitoring was conducted in July 2014 and will further be conducted until the reported total CVOc concentration in each of the selected wells achieves the NYSDEC-defined SCG a level of 1 mg/L or below of total CVOcs.

#### **3.2 Sampling Protocol**

##### **3.2.1 Groundwater Wells**

Groundwater level measurements were collected from the designated monitoring well locations (i.e., MW-2, MW-4, MW-4A, MW-11, MW-13, PZ-A) prior to sampling. Each well was purged using low-flow pumping techniques. Groundwater samples were collected after at least three well-volumes were removed. Sampled groundwater was collected in laboratory-supplied bottles, placed in a cooler, chilled to approximately 4 degrees Celsius (°C), and transported to the analytical laboratory (i.e., Alpha Analytical) by field crew under chain-of-custody procedures.

Groundwater samples were tested for VOCs by SW-846 Method 8260. To monitor QA/QC for each groundwater sampling event, one duplicate sample and one trip blank were collected during the monitoring event.

##### **3.2.2 Disposal Drums**

All purged water was containerized within a 55-gallon drum that was stored on-Site proximate the trash enclosure. A composite sample of the contents of the drum was sampled on August 12, 2014 to evaluate

whether the waste is characterized as non-hazardous or hazardous for disposal purposes. As of December 2010, the criteria for evaluating the composite sample results to determine whether the waste is hazardous or nonhazardous is outlined in the New York State regulations in 6 NYCRR Part 371.3(e) and the Federal Regulations in 40 CFR Part 261.24. Historic waste characterization evaluations (by others) have found that the constituents most likely to impact the evaluation are the VOC constituents listed in the Table below (their respective criteria for determining the hazardous character of the waste is also included).

Constituent	6 NYCRR Part 371.3 (e) (as of December 2010)	40 CFR Part 261.24 (as of December 2010)
PCE	0.7 mg/L	0.7 mg/L
TCE	0.5 mg/L	0.5 mg/L
Vinyl Chloride	0.2 mg/L	0.2 mg/L

Based on the attached analytical results (see Appendices), the drum contents include the following parameters:

- Only one VOC was detected as Vinyl Chloride at 0.0038 milligrams per liter (mg/l or ppm) or 3.8 parts per billion (ppb), which is significantly below the above-listed regulatory limit for a hazardous classification.
- Corrosivity (pH) of 7.6 S.U.
- Ignitability of >150 °F

Based on these results, the development waters collected to date are not considered hazardous and may be disposed in accordance with regulatory requirements.

### 3.3 Monitoring Quality Assurance/Quality Control (QA/QC)

All sampling and analyses will be performed in accordance with the requirements of the Quality Assurance Project Plan (QAPP) prepared for the Site and presented in the SMP. Main components include:

- Sampling Program
  - Sample containers will be provided by the laboratory to certify that they are properly washed, decontaminated, and dosed with appropriate preservative (if applicable) prior to sample collection and analysis. Containers with preservative will be properly labeled as such.
  - Sample holding times will be in accordance with the NYSDEC Analytical Services Protocol (ASP) requirements.
  - Field QC samples (e.g., trip blanks and coded field duplicates) will be collected as necessary.
- Analytical Procedures.
- Preparation of a summary of sample preservation and chain-of-custody procedures.
- Calibration Procedures:
  - All field analytical equipment will be calibrated immediately prior to each day's use. Calibration procedures will conform to manufacturer's standard instructions.
  - The laboratory will follow all calibration procedures and schedules as specified in EPA SW-846 and subsequent updates that apply to the instruments used for the analytical methods.
- Preventative Maintenance Procedures and Schedules.
- Corrective Action Measures.

## **4.0 Summary of Results**

### **4.1 Institutional/Engineering Control Verification**

As per the NYSDEC Site Management Periodic Review (PRR) Notice, Institutional Controls (IC) and Engineering Controls (EC) Certification process, the Owner (i.e., 2137 Seneca Street LLC) is required to verify that all existing site controls are still applicable. The Owner has certified that the IC/EC are applicable (refer to Appendix B - Institutional Controls (IC) and Engineering Controls (EC) Certification).

### **4.2 Engineering Controls Certification**

As per the NYSDEC Site Management Periodic Review (PRR) Notice, Institutional Controls (IC) and Engineering Controls (EC) Certification process, the Owner (i.e., 2137 Seneca Street LLC) is required to verify that all existing site controls are still applicable.

The following EC are listed for the Site:

- Cover System Inspection

Based on the results of the Site inspection, the following was noted:

- Vegetative cover along Kingston Place – no concerns noted (refer to Appendix B-2)
- Sidewalk (Kingston Place), parking lot, building walkways, access roads – no concerns (refer to Appendix B-2)

### **4.3 Groundwater Monitoring Program**

Six (6) groundwater monitoring wells were redeveloped on July 31, 2014 prior to sampling. Well redevelopment included the following tasks:

- Each well was redeveloped using a low-flow peristaltic pump, Model Geotech Geopump II, and appropriate-diameter polyethylene tubing. Prior to redevelopment, each well was gauged with an electronic water level indicator to determine the depth to the water table; such data is presented in Table No. 2. [Table No. 1 also presents historic water levels obtained by others] Well evacuation continued until at least three well volumes were removed. The evacuated waters were stored in a 55-gallon drum on-site.
- Monitoring well PZ-A was developed using a 1-inch PVC bailer and at least five well volumes were evacuated.
- Groundwater samples were obtained via the low-flow peristaltic pump, utilizing the same polyethylene tubing used for well redevelopment.
- Groundwater samples were placed into pre-cleaned jars provided by the analytical laboratory, Alpha Analytical. One trip blank QA/QC sample was also submitted for analysis. One unmarked Duplicate sample was also submitted for analysis. The eight (8) samples were submitted for volatile organic compound (VOC) analysis via USEPA Method 8260C.

#### **4.3.1 Groundwater Levels**

Groundwater elevations were plotted on a site location map which presents the existing Groundwater Monitoring System wells. Groundwater elevations are referenced to the top of the well casing at each well and are presented in Table 2 and shown graphically on Figure 3. The approximate shallow overburden groundwater flow direction is believed to be to the north-northwest direction and is consistent with historic data.

#### **4.3.1.1 Well Integrity**

All monitoring wells were checked for integrity of the steel road boxes and the surface cement-grout seals. All road boxes and the surface seals were determined to be intact. However, the road box hold-down bolts at well PZ-A were noted to be stripped. The bolts were replaced on extraction and the well was secured.

#### **4.3.2 Analytical Results**

Based on the analytical results of the groundwater sampling and testing, the detected parameters are presented in Table 2 and graphically on Figure 4. Total CVOC concentrations, which include a summation of PCE and its potential breakdown products (TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, 1,1-DCA, and Vinyl Chloride), are presented in milligrams per liter (mg/L).

In general, the CVOC concentrations were below the NYSDEC-mandated SCG concentration of 1 milligram per liter (mg/L), except at monitoring well MW-4 (6.112 mg/l), MW-11 (2.900 mg/l), and PZ-A (4.304 mg/l). It should be noted that PCE degradation CVOCs were detected in deep monitoring well MW-4A, and included vinyl chloride (0.1500 ppm) and cis-1,2-Dichloroethene (0.0890 ppm).

## **5.0 Findings and Recommendations**

### **5.1 IC/EC Certification**

No concerns were identified during the Cover System inspection on July 31, 2014.

Recommendations: None

### **5.2 Groundwater Monitoring Program**

Reported CVOC concentrations were below the NYSDEC-mandated SCG concentration of 1 milligram per liter (mg/L), except at except at monitoring well MW-4 (6.112 mg/l), MW-11 (2.900 mg/l), and PZ-A (4.304 mg/l).

Recommendations: Continued Groundwater Monitoring is required as stipulated in the VCP agreement until the NYSDEC-mandated SCG is attained. Once attained, four (4) additional Quarters of Groundwater Monitoring will be required.

## **6.0 Signature of Environmental Professional**

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR 312.10.

I have the specific qualifications based on education, training, and experience to undertake this Periodic Review Report of the property identified as Former Pizza Hut, 2137 Seneca Street, Buffalo, New York for the current Owner, 2137 Seneca Street, LLC.

A handwritten signature in black ink, appearing to read "Andrew J. Kueserik".

Andrew J. Kueserik, CPG, PG  
Environmental Manager

Mr. Kucserik's professional history includes 33 years of experience as a professional geologist, manager, and currently holds the title of Environmental Manager and Senior Geologist for QISI in Buffalo, NY. Mr. Kucserik's technical responsibilities include: preparation and review of technical documents relating to environmental, geotechnical, geophysical, and groundwater investigations. Preparing technical staff for field investigations and conducting periodic field oversight for quality assurance. Review of draft technical reports for client submission. Geophysical investigations (electromagnetic, ground penetrating radar, electrical resistivity) for geotechnical and environmental projects. Geologic and environmental due diligence report preparation and oversight.

**Quality Inspection Services, Inc. (QISI), Buffalo, NY**  
ENVIRONMENTAL MANAGER

- ⊕ Responsible for scheduling and management of all Environmental due diligence activities (Phase I) projects in the Western New York area and portions of Pennsylvania. Mr. Kucserik is also responsible for providing professional services concerning Phase II Environmental Site Assessments incorporating in-house drill rigs and staff, site remediation, soil, groundwater, and soil gas vapor sampling, geophysical investigations, and oversight monitoring.
- ⊕ Underground storage tank (UST) removal investigations and oversight monitoring.
- ⊕ Completed over 2,000 Phase I Environmental Site Assessments.
- ⊕ Completed over 200 geophysical surveys utilizing magnetometer, ground penetrating radar, seismic blast monitoring, resistivity surveys, and reflection/refraction equipment.
- ⊕ Regulatory agency interfacing.
- ⊕ Business development.

**Lender Consulting Services, Inc., Buffalo, NY**  
GENERAL MANAGER – WESTERN NEW YORK REGION

- ⊕ Business development
- ⊕ Phase I and Phase II project coordination
- ⊕ Client interfacing
- ⊕ Regulatory interfacing
- ⊕ Senior Environmental Professional review

**Barron & Associates, P.C., Clarence, NY**  
ENVIRONMENTAL MANGER/SENIOR GEOLOGIST

- ⊕ Phase I and Phase II project coordination
- ⊕ Geophysical investigations
- ⊕ Client interfacing

**Professional Background**  
Environmental Manager

**Education**

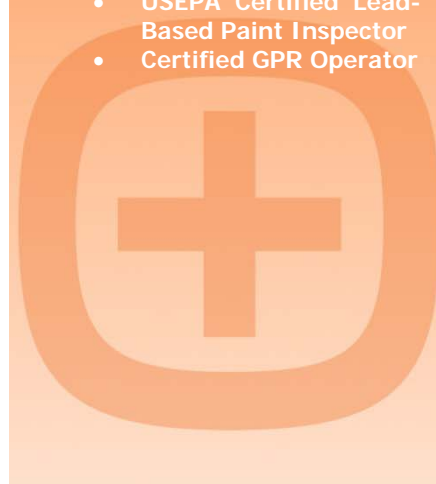
B.A. in Geological Sciences  
State University of New York  
at Buffalo

Post Graduate work in  
Geological Sciences  
State University of New York  
at Buffalo

**Years of Experience**  
33

**Certifications**

- Pennsylvania Professional Geologist #PG002551G
- American Institute of Professional Geologists, Certified Professional Geologist #7951
- Buffalo Association of Professional Geologists, President 1988, V. Pres. 1987, Treasurer 1986, Board of Directors
- USEPA Certified Lead-Based Paint Inspector
- Certified GPR Operator



**EMPLOYMENT (CONTINUED)****Day Environmental Inc., Rochester, NY****SENIOR GEOLOGIST**

- ⊕ Phase I and Phase II project coordination
- ⊕ Client interfacing

**ECCO, Inc., Buffalo, NY****SENIOR GEOLOGIST**

- ⊕ Phase I and Phase II project coordination
- ⊕ New York State Certified Asbestos Handler

**Empire Soils Investigations, Inc., Hamburg, NY****SENIOR GEOLOGIST/DRILLING MANAGER/CONSTRUCTION TECHNICIAN**

- ⊕ Oversight monitoring on construction projects for concrete and soils
- ⊕ Laboratory technician
- ⊕ Managed and scheduled six drill crews in the Western New York area
- ⊕ Geologic reports
- ⊕ Assisted in-house engineering staff with geologic services

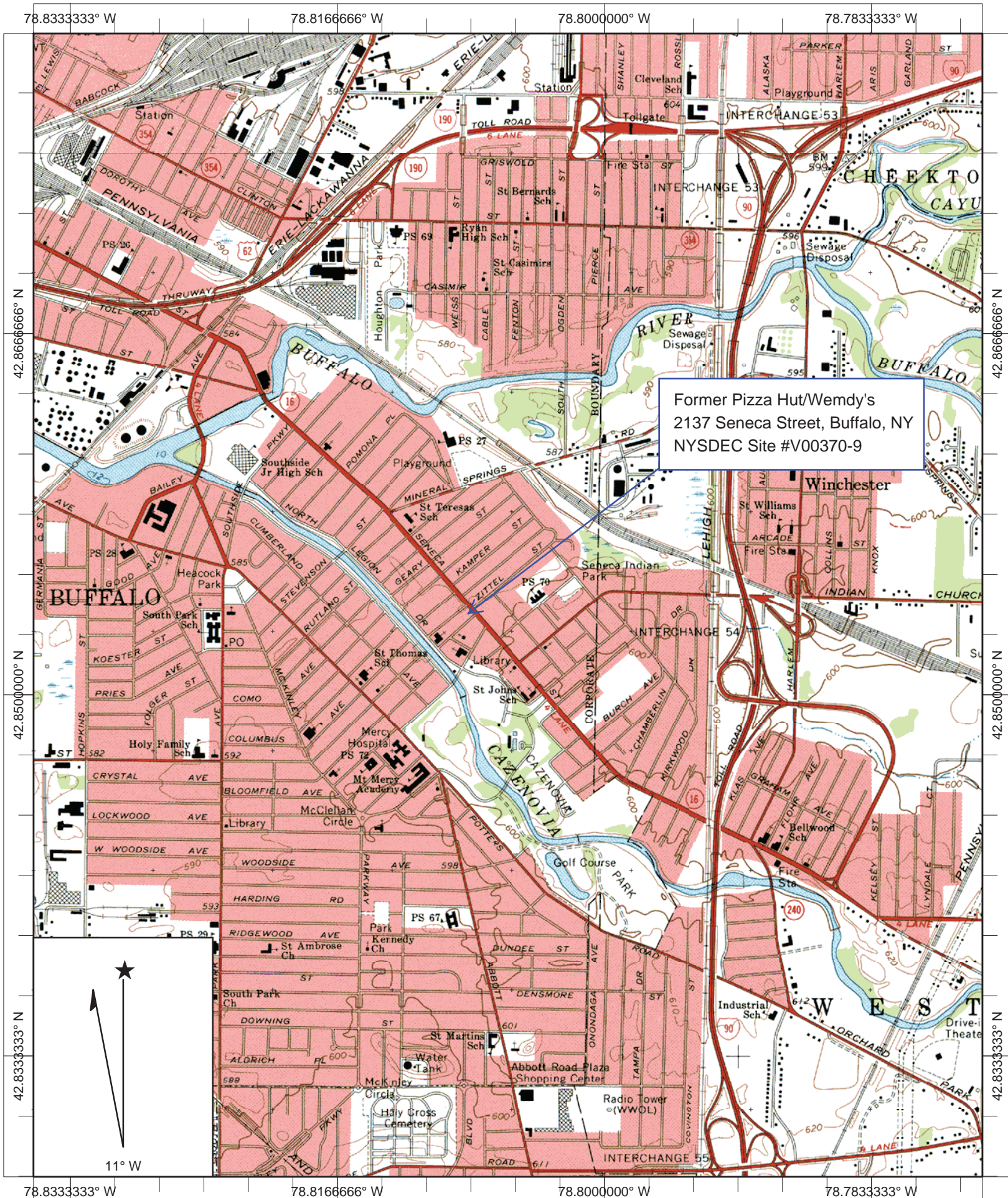
**PROFESSIONAL AFFILIATIONS & TRAINING**

- ⊕ HAZWOPER Recertification (July 2012)
- ⊕ USEPA Certified Lead-Based Paint Inspector (May 2012)
- ⊕ SUNY @ Buffalo Geology Alumni Advisory Board (2010 – present)
- ⊕ Radiation Worker II Safety Refresher (May 2003)
- ⊕ USEPA Fractured Bedrock Symposium (February 2001)
- ⊕ Wetlands Identification & Delineation (December 2000)
- ⊕ Federal and State Spill Reporting Requirements (October 1997)
- ⊕ ASTM Seminar, Risk-Based Corrective Action (June 1997)
- ⊕ ASCE Course on Foundation Design (April 1997)
- ⊕ IAH Symposium, Modern Trends in Hydrogeology (May 1992)
- ⊕ Asbestos Handlers & Supervisors Course (February 1989)
- ⊕ OSHA 1910.120 40-Hour Hazardous Waste Certification (December 1987)
- ⊕ Site Assessment of Hazardous Waste Sites (October 1987)



## **APPENDICES**

## **APPENDIX A – FIGURES AND TABLES**



Name: BUFFALO SE

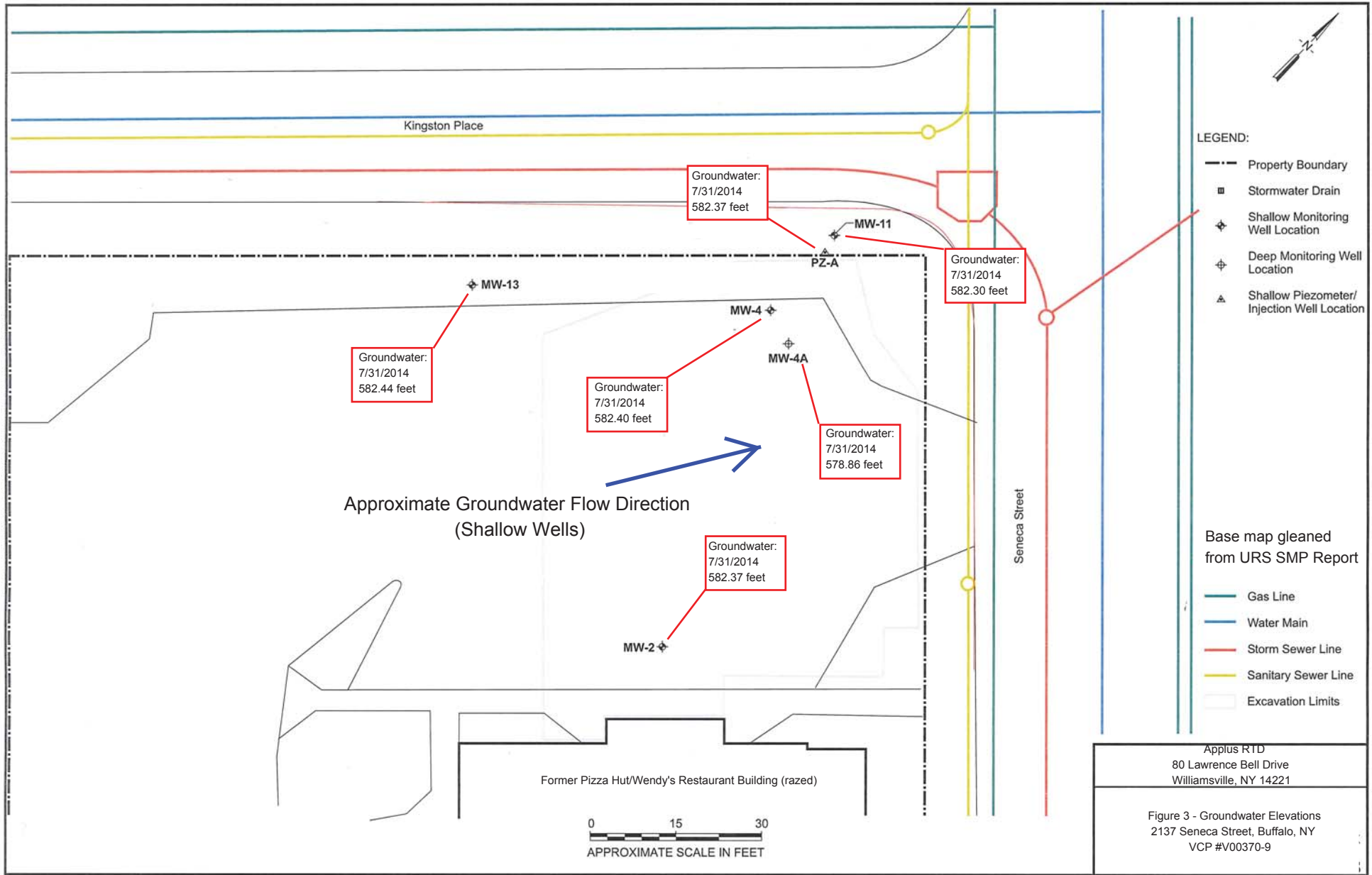
Scale: 1 inch equals 2000 feet

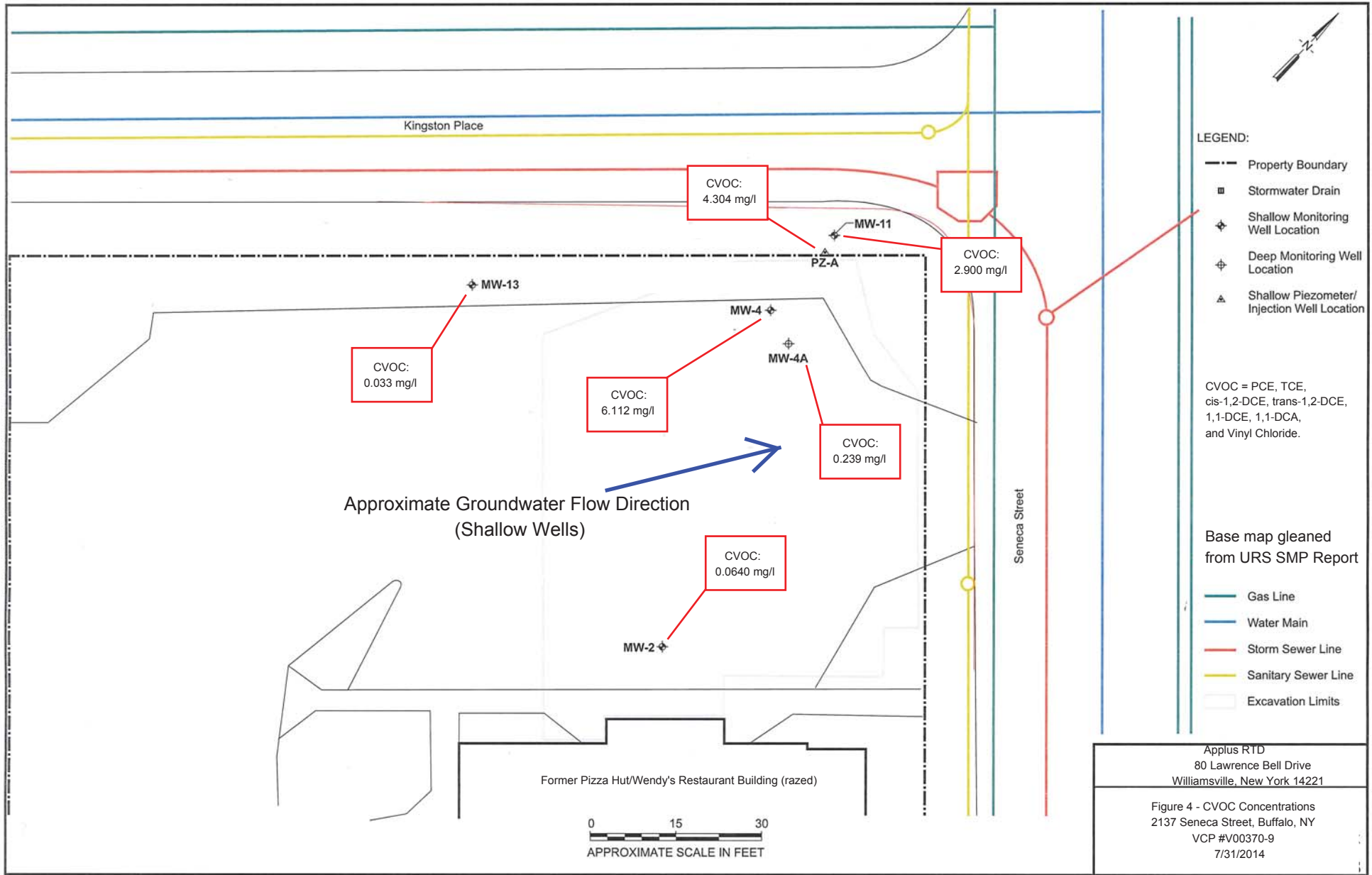
Location: 042.8541398° N 078.8060336° W  
Caption: 2137 Seneca Street, Buffalo, NY (1965)

Figure1









## MEASUREMENT OF GROUNDWATER LEVELS

Site Name / Number: Parcel 2 - 2137 Seneca St. / VCA 00370-9

Date: 7 / 31 / 2014

Owner:

By: QISI / Applus RTD

Location: Buffalo, NY

Meas. Method	Electronic Sounder
--------------	--------------------

[illegible]

APPLUS RTD - Quality Inspection Services, Inc.  
80 Lawrence Bell Drive  
Williamsville, New York 14221  
O: 716 279 3525  
F: 716 853 2619

TABLE 1  
GROUNDWATER ELEVATIONS  
2137 SENECA STREET  
BUFFALO, NEW YORK

		<u>1/10/2005</u>	<u>5/25/2005</u>	<u>1/6/2006</u>	<u>6/7/2006</u>	<u>3/20/2007</u>	<u>12/5/2007</u>	<u>7/1/2008</u>	<u>3/18/2009</u>	<u>6/4/2009</u>	<u>2/11/2010</u>	<u>6/23/2010</u>	<u>4/19/2013</u>	<u>11/15/2013</u>	<u>7/31/2014</u>
Well No.	Top of Casing (feet)	Groundwater Elevation (feet)	Groundwater Elevation (feet)	Groundwater Elevation (feet)	Groundwater Elevation (feet)	Groundwater Elevation (feet)	Groundwater Elevation (feet)	Groundwater Elevation (feet)	Groundwater Elevation (feet)	Groundwater Elevation (feet)	Groundwater Elevation (feet)	Groundwater Elevation (feet)	Groundwater Elevation (feet)	Groundwater Elevation (feet)	Groundwater Elevation (feet)
<u>Shallow Wells</u>															
MW-2	590.24	583.41	581.82	583.30	581.79	582.91	582.82	583.25	583.26	582.30	581.93	582.53	583.12	582.82	582.37
MW-4	589.47	583.26	581.72	583.14	581.67	582.83	582.78	583.15	583.12	583.13	581.92	582.47	583.04	582.74	582.40
MW-11	589.48	583.07	581.60	582.89	581.58	582.60	582.72	583.09	582.95	582.06	581.82	582.43	582.96	582.70	582.30
MW-13	589.77	583.37	581.72	583.25	581.68	582.85	582.76	583.23	582.52	582.08	581.86	582.45	583.04	582.73	582.44
PZ-A	589.86	NA	NA	NA	581.66	582.81	582.49	582.01	582.78	581.85	581.55	582.38	582.98	582.71	582.37
<u>Deep Well</u>															
MW-4A	589.04	579.35	578.42	578.55	578.74	579.28	578.96	578.98	579.30	578.62	578.89	578.90	579.12	579.07	578.86



TABLE 2  
ANALYTICAL RESULTS SUMMARY  
2137 SENECA STREET  
BUFFALO, NEW YORK

Parameters (mg/L)	MW-2		MW-4		MW-11		MW-13		PZ-A		MW-4A	
	2006	7/31/2014	2006	7/31/2014	2006	7/31/2014	2006	7/31/2014	2006	7/31/2014	2006	7/31/2014
<b>TCL Volatile Organics</b>												
Acetone	-	0.00000	0.0029 J	0.0000	-	0.0000	-	0.0000		0.0000	-	0.0000
Benzene	-	0.0002 J	0.0023	0.0000	-	0.0000	-	0.0000		0.0000	-	0.0000
2-Butanone	-	0.00000	-	0.0000	-	0.0000	-	0.0000		0.0000	-	0.0000
1,1-Dichloroethene	-	0.00000	0.0017	0.0000	-	0.0000	-	0.0000		0.0036	-	0.0000
Cyclohexane	-	0.00041 J	-	NA	-	NA	-	NA		NA	-	NA
1,1-Dichloroethane	-	0.00000	-	0.0000	-	0.0000	-	0.0000		0.0000	-	0.0000
cis-1,2-Dichloroethene	0.027	0.03500	0.540 D	4.6000	0.016	1.7000	0.017	0.016		2.8000	0.015	0.0890
trans-1, 2-Dichloroethene	-	0.00000	0.0042	0.0000	-	0.0000	-	0.0000		0.0000	-	0.0000
Methyl-t-Butyl Ether (MTBE)	-	0.00000	-	0.0000	-	0.0000	-	0.0025		0.0000	-	0.0000
Methylcyclohexane	-	NA	-	NA	-	NA	-	NA		NA	-	NA
Tetrachloroethene	0.025	0.00057	12.0 D	0.0000	0.390 D	0.0000	0.470 D	0.0000		0.0000	0.00051 J	0.0000
Toluene	-	0.00000	-	0.0000	-	0.0000	-	0.0000		0.0000	-	0.0000
1,1,1-Trichloroethane	-	0.00000	-	0.0000	-	0.0000	-	0.0000		0.0000	-	0.0000
Trichloroethene (7/31/14 -J)	0.018	0.00024	2.8 D	0.0120	0.038	0.0000	0.039	0.00052		0.0000	0.003	0.0000
Vinyl Chloride	-	0.02800	0.0082	1.500	-	1.200	-	0.0160		1.5000	0.019	0.1500
p/m Xylene	-	0.0014 J										
<b>Ethane, Ethene, and Methane</b>												
Ethane	-	NA	0.015	NA	-	NA	-	NA		NA	-	NA
Methane	0.017	NA	0.036	NA	0.035	NA	-	NA		NA	0.081	NA
<b>Cumulative CVOC Concentration</b>	0.070	0.064	<b>15.354</b>	<b>6.112</b>	0.444	<b>2.900</b>	0.526	0.033		<b>4.304</b>	0.038	0.239
Previous Cum CVOC Event (Nov. 14, 2013)		0.0052		<b>8.921</b>		0.922		0.004		<b>5.800</b>		0.009

Sample results collected in January 2006 were collected and analyzed by others

Samples collected on July 31, 2014 were analyzed by Alpha Analytical

NM= Not Measure; NA= Not Analyzed

J= Estimated concentration below reporting limit

D= Diluted sample

Note: CVOCs are the sum of PCE and its potential breakdown products (TCE, cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, 1,1-DCA, and Vinyl Chloride]

## **APPENDIX B – IC/EC CERTIFICATIONS**

## **APPENDIX B-1 – OWNER CERTIFICATION**

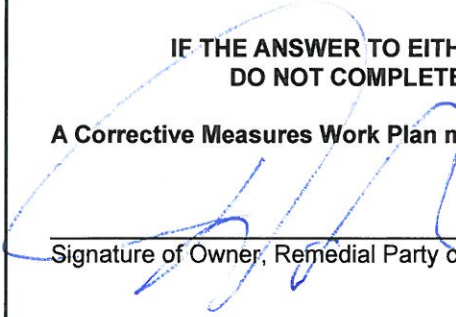


Enclosure 2  
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
Site Management Periodic Review Report Notice  
Institutional and Engineering Controls Certification Form



Site Details		Box 1	
Site No.	V00370		
Site Name Former Pizza Hut			
Site Address: 2137 Seneca Street		Zip Code: 14210	
City/Town: Buffalo			
County: Erie			
Site Acreage: 0.7			
Reporting Period: January 29, 2014 to January 29, 2015			
		YES	NO
1. Is the information above correct?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.			
5. Is the site currently undergoing development?		<input type="checkbox"/>	<input checked="" type="checkbox"/>

		Box 2	
		YES	NO
6. Is the current site use consistent with the use(s) listed below? Commercial and Industrial		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Are all ICs/ECs in place and functioning as designed?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	
		2-28-15	

**SITE NO. V00370**

**Box 3**

**Description of Institutional Controls**

Parcel

Owner

Institutional Control

**133.26-07-1.1**

2137 Seneca Street, LLC

Monitoring Plan

Ground Water Use Restriction

Landuse Restriction

Site Management Plan

The Declaration of Covenants and Restrictions prohibits the site from being used for anything other than industrial or commercial purposes, excluding day care, child care and medical care uses. The use of the groundwater underlying the site is also prohibit without proper treatment.

The Site Management Plan includes provisions for continued groundwater monitoring, inspection of the existing site cover, disposition of excavated soils and evaluating the potential for intrusive soil vapors if the building on site is ever reoccupied or another building constructed in its place.

**Description of Engineering Controls**

**Box 4**

Parcel

Engineering Control

**133.26-07-1.1**

Cover System

### 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. V00370

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 DAVID E Paulil at 1659 Ashmont Street  
print name print business address

am certifying as MAN AG Partner (Owner or Remedial Party)

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

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

2-28-15  
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.

DONALD E Borkowski at WILLIAMSVILLE, N.Y. 14221  
print name print business address

am certifying as a Professional Engineer for the 2137 Seneca Street LLC  
(Owner or Remedial Party)



Donald E Borkowski  
Signature of Professional Engineer, for the Owner or Remedial Party, Rendering Certification

28 February 2015

Date

Stamp  
(Required for PE)



## **APPENDIX B-2 – SITE INSPECTION FORMS**

**INSPECTION FORM  
COVER SYSTEM**

Inspector's Name Andrew J. Kucserik  
Date and Time of Inspection 7/31/2014  
Date of Last Inspection 11/14/2013  
Purpose for Inspection: Annual/Periodic: X  
Post-excavation or surface repair: \_\_\_\_\_  
After significant weather events: \_\_\_\_\_  
Observed damage requiring inspection / Other: \_\_\_\_\_

**INSPECTION CHECKLIST**

**1. Vegetative cover along Kingston Place**

Walk the length of the vegetative cover.

Comments

- Are there any bare spots in the vegetation cover?         Yes X No      \_\_\_\_\_
- Are there any signs of damaged or diseased vegetation?         Yes X No      \_\_\_\_\_
- Are there any signs of excessive erosion?         Yes X No      \_\_\_\_\_
- Is there new root exposure or new woody plants established?         Yes X No      \_\_\_\_\_
- Are there any signs of burrowing animals?         Yes X No      \_\_\_\_\_
- Any other Observations?      \_\_\_\_\_

**2. Sidewalk along Kingston Place and Seneca Street, walkways around building, Asphalt pavement associated with parking lot and access way to road**

Walk the length of the sidewalks.

Comments

- Are there any cracks greater than 1/2-inch apart?         Yes X No      \_\_\_\_\_
- Are there any signs of raised pavement associated with plant roots or subsurface subsidence?         Yes X No      \_\_\_\_\_
- Are there any signs of extensive deterioration of pavement?         Yes X No      \_\_\_\_\_
- Any other Observations?      \_\_\_\_\_

3. Remedial Action Required No

4. Inspector's Signature Andrew J. Kucserik

**RETURN COMPLETED FORM TO PROPERTY OWNER REPRESENTATIVE**

## SITE-WIDE INSPECTION FORM

Inspector's Name Andrew J. Kucserik  
Date and Time of Inspection 7/31/2014  
Date of Last Inspection 11/14/2013  
Purpose for Inspection: Annual/Periodic: ☒  
Changes to Site Use: \_\_\_\_\_  
Property Owner Transfer: \_\_\_\_\_  
Changes in Site Condition / Other: \_\_\_\_\_

## SITE OWNERSHIP AND USE

1. Site Owner: 2137 Seneca Street LLC New Owner since last inspection? \_\_\_ Yes ☒ No
2. Name of Establishment: Dollar General (retail store)
3. Current Site Use: ☒ Commercial \_\_\_ Industrial \_\_\_ Unoccupied \_\_\_ Other: \_\_\_\_\_
4. Are there any tenants residing on Site? \_\_\_ Yes\* ☒ No
5. Does the Site Use include a day care, child care, or medical Care facility? \_\_\_ Yes\* ☒ No
6. Does the Site Use include a vegetable garden? \_\_\_ Yes\* ☒ No
7. Does the Site utilize on Site groundwater for irrigation, potable use, or other use? \_\_\_ Yes\* ☒ No
8. Has the soil cover been compromised such that contamination has been encountered? \_\_\_ Yes\* ☒ No

"\*": Any conditions associated with an asterisk require review of the VCA and Declaration of Covenants and Restrictions (Appendix A and B of the SMP) and potential notification to NYSDEC to verify that this use is currently appropriate for the Site.

## MEDIA MONITORING STATUS

1. Has a soil cover inspection been conducted since the last site-wide inspection? ☒ Yes \_\_\_ No  
Inspection Date: 7/31/2014 (Please attach copy(s) of inspection form)
2. Has groundwater monitoring performed since the past inspection? ☒ Yes \_\_\_ No  
Monitoring Dates: 7/31/2014 \_\_\_\_\_
3. Remedial Action Required No

4. Inspector's Signature Andrew J. Kucserik

RETURN COMPLETED FORM TO PROPERTY OWNER REPRESENTATIVE AND NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC)

Parcel 2 – 2137 Seneca Street  
NYSDEC VCP Site Number: V-00370-9  
Site Management Plan

I

Buffalo, NY  
12/7/10

## **APPENDIX C – ANALYTICAL DATA**



## ANALYTICAL REPORT

Lab Number:	L1417195
Client:	Quality Inspection Services Inc. 37 Franklin Street Suite 400 Buffalo, NY 14202
ATTN:	Andrew Kucserik
Phone:	(716) 853-2611
Project Name:	DOLLAR GENERAL/VCP
Project Number:	07.007684/001
Report Date:	08/07/14

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** DOLLAR GENERAL/VCP  
**Project Number:** 07.007684/001

**Lab Number:** L1417195  
**Report Date:** 08/07/14

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1417195-01	MW-2	WATER	2137 SENECA ST. BUFFALO, NY	07/31/14 15:00	07/31/14
L1417195-02	MW-4	WATER	2137 SENECA ST. BUFFALO, NY	07/31/14 15:15	07/31/14
L1417195-03	MW-4A	WATER	2137 SENECA ST. BUFFALO, NY	07/31/14 15:17	07/31/14
L1417195-04	MW-11	WATER	2137 SENECA ST. BUFFALO, NY	07/31/14 15:33	07/31/14
L1417195-05	MW-13	WATER	2137 SENECA ST. BUFFALO, NY	07/31/14 15:28	07/31/14
L1417195-06	PZ-A	WATER	2137 SENECA ST. BUFFALO, NY	07/31/14 15:40	07/31/14
L1417195-07	DUPLICATE	WATER	2137 SENECA ST. BUFFALO, NY	07/31/14 15:13	07/31/14
L1417195-08	TRIP	WATER	2137 SENECA ST. BUFFALO, NY	07/31/14 00:00	07/31/14

**Project Name:** DOLLAR GENERAL/VCP  
**Project Number:** 07.007684/001

**Lab Number:** L1417195  
**Report Date:** 08/07/14

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

---

**Project Name:** DOLLAR GENERAL/VCP  
**Project Number:** 07.007684/001

**Lab Number:** L1417195  
**Report Date:** 08/07/14

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

The project number was supplied by the client.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Cristin Walker

Title: Technical Director/Representative

Date: 08/07/14



# ORGANICS

# **VOLATILES**

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS**

**Lab ID:** L1417195-01  
**Client ID:** MW-2  
**Sample Location:** 2137 SENECA ST. BUFFALO, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 08/02/14 19:36  
**Analyst:** PD

**Date Collected:** 07/31/14 15:00  
**Date Received:** 07/31/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.57		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	0.20	J	ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	28		ug/l	1.0	0.33	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.24	J	ug/l	0.50	0.17	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS****Lab ID:** L1417195-01**Date Collected:** 07/31/14 15:00**Client ID:** MW-2**Date Received:** 07/31/14**Sample Location:** 2137 SENECA ST. BUFFALO, NY**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	1.4	J	ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	35		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.0	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	0.41	J	ug/l	10	0.24	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.29	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	97		70-130

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS**

**Lab ID:** L1417195-02      D  
**Client ID:** MW-4  
**Sample Location:** 2137 SENECA ST. BUFFALO, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 08/02/14 21:53  
**Analyst:** PD

**Date Collected:** 07/31/14 15:15  
**Date Received:** 07/31/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	120	35.	50
1,1-Dichloroethane	ND		ug/l	120	35.	50
Chloroform	ND		ug/l	120	35.	50
Carbon tetrachloride	ND		ug/l	25	6.7	50
1,2-Dichloropropane	ND		ug/l	50	6.6	50
Dibromochloromethane	ND		ug/l	25	7.5	50
1,1,2-Trichloroethane	ND		ug/l	75	25.	50
Tetrachloroethene	ND		ug/l	25	9.1	50
Chlorobenzene	ND		ug/l	120	35.	50
Trichlorofluoromethane	ND		ug/l	120	35.	50
1,2-Dichloroethane	ND		ug/l	25	6.6	50
1,1,1-Trichloroethane	ND		ug/l	120	35.	50
Bromodichloromethane	ND		ug/l	25	9.6	50
trans-1,3-Dichloropropene	ND		ug/l	25	8.2	50
cis-1,3-Dichloropropene	ND		ug/l	25	7.2	50
Bromoform	ND		ug/l	100	32.	50
1,1,2,2-Tetrachloroethane	ND		ug/l	25	7.2	50
Benzene	ND		ug/l	25	7.9	50
Toluene	ND		ug/l	120	35.	50
Ethylbenzene	ND		ug/l	120	35.	50
Chloromethane	ND		ug/l	120	35.	50
Bromomethane	ND		ug/l	120	35.	50
Vinyl chloride	1500		ug/l	50	16.	50
Chloroethane	ND		ug/l	120	35.	50
1,1-Dichloroethene	ND		ug/l	25	7.1	50
trans-1,2-Dichloroethene	ND		ug/l	120	35.	50
Trichloroethene	12	J	ug/l	25	8.7	50
1,2-Dichlorobenzene	ND		ug/l	120	35.	50
1,3-Dichlorobenzene	ND		ug/l	120	35.	50
1,4-Dichlorobenzene	ND		ug/l	120	35.	50

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS**

Lab ID: L1417195-02 D  
 Client ID: MW-4  
 Sample Location: 2137 SENECA ST. BUFFALO, NY

Date Collected: 07/31/14 15:15  
 Date Received: 07/31/14  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	120	35.	50
p/m-Xylene	ND		ug/l	120	35.	50
o-Xylene	ND		ug/l	120	35.	50
cis-1,2-Dichloroethene	4600		ug/l	120	35.	50
Styrene	ND		ug/l	120	35.	50
Dichlorodifluoromethane	ND		ug/l	250	50.	50
Acetone	ND		ug/l	250	50.	50
Carbon disulfide	ND		ug/l	250	50.	50
2-Butanone	ND		ug/l	250	50.	50
4-Methyl-2-pentanone	ND		ug/l	250	50.	50
2-Hexanone	ND		ug/l	250	50.	50
Bromochloromethane	ND		ug/l	120	35.	50
1,2-Dibromoethane	ND		ug/l	100	32.	50
1,2-Dibromo-3-chloropropane	ND		ug/l	120	35.	50
Isopropylbenzene	ND		ug/l	120	35.	50
1,2,3-Trichlorobenzene	ND		ug/l	120	35.	50
1,2,4-Trichlorobenzene	ND		ug/l	120	35.	50
Methyl Acetate	ND		ug/l	100	12.	50
Cyclohexane	ND		ug/l	500	12.	50
1,4-Dioxane	ND		ug/l	12000	2000	50
Freon-113	ND		ug/l	120	35.	50
Methyl cyclohexane	ND		ug/l	500	14.	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	98		70-130

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS**

**Lab ID:** L1417195-03  
**Client ID:** MW-4A  
**Sample Location:** 2137 SENECA ST. BUFFALO, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 08/02/14 20:10  
**Analyst:** PD

**Date Collected:** 07/31/14 15:17  
**Date Received:** 07/31/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	150		ug/l	1.0	0.33	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.17	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS****Lab ID:** L1417195-03**Date Collected:** 07/31/14 15:17**Client ID:** MW-4A**Date Received:** 07/31/14**Sample Location:** 2137 SENECA ST. BUFFALO, NY**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	89		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.0	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.24	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.29	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	98		70-130



**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS**

**Lab ID:** L1417195-04      D  
**Client ID:** MW-11  
**Sample Location:** 2137 SENECA ST. BUFFALO, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 08/02/14 22:27  
**Analyst:** PD

**Date Collected:** 07/31/14 15:33  
**Date Received:** 07/31/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	62	18.	25
1,1-Dichloroethane	ND		ug/l	62	18.	25
Chloroform	ND		ug/l	62	18.	25
Carbon tetrachloride	ND		ug/l	12	3.4	25
1,2-Dichloropropane	ND		ug/l	25	3.3	25
Dibromochloromethane	ND		ug/l	12	3.7	25
1,1,2-Trichloroethane	ND		ug/l	38	12.	25
Tetrachloroethene	ND		ug/l	12	4.5	25
Chlorobenzene	ND		ug/l	62	18.	25
Trichlorofluoromethane	ND		ug/l	62	18.	25
1,2-Dichloroethane	ND		ug/l	12	3.3	25
1,1,1-Trichloroethane	ND		ug/l	62	18.	25
Bromodichloromethane	ND		ug/l	12	4.8	25
trans-1,3-Dichloropropene	ND		ug/l	12	4.1	25
cis-1,3-Dichloropropene	ND		ug/l	12	3.6	25
Bromoform	ND		ug/l	50	16.	25
1,1,2,2-Tetrachloroethane	ND		ug/l	12	3.6	25
Benzene	ND		ug/l	12	4.0	25
Toluene	ND		ug/l	62	18.	25
Ethylbenzene	ND		ug/l	62	18.	25
Chloromethane	ND		ug/l	62	18.	25
Bromomethane	ND		ug/l	62	18.	25
Vinyl chloride	1200		ug/l	25	8.2	25
Chloroethane	ND		ug/l	62	18.	25
1,1-Dichloroethene	ND		ug/l	12	3.5	25
trans-1,2-Dichloroethene	ND		ug/l	62	18.	25
Trichloroethene	ND		ug/l	12	4.4	25
1,2-Dichlorobenzene	ND		ug/l	62	18.	25
1,3-Dichlorobenzene	ND		ug/l	62	18.	25
1,4-Dichlorobenzene	ND		ug/l	62	18.	25

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS**

Lab ID: L1417195-04 D  
 Client ID: MW-11  
 Sample Location: 2137 SENECA ST. BUFFALO, NY

Date Collected: 07/31/14 15:33  
 Date Received: 07/31/14  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	62	18.	25
p/m-Xylene	ND		ug/l	62	18.	25
o-Xylene	ND		ug/l	62	18.	25
cis-1,2-Dichloroethene	1700		ug/l	62	18.	25
Styrene	ND		ug/l	62	18.	25
Dichlorodifluoromethane	ND		ug/l	120	25.	25
Acetone	ND		ug/l	120	25.	25
Carbon disulfide	ND		ug/l	120	25.	25
2-Butanone	ND		ug/l	120	25.	25
4-Methyl-2-pentanone	ND		ug/l	120	25.	25
2-Hexanone	ND		ug/l	120	25.	25
Bromochloromethane	ND		ug/l	62	18.	25
1,2-Dibromoethane	ND		ug/l	50	16.	25
1,2-Dibromo-3-chloropropane	ND		ug/l	62	18.	25
Isopropylbenzene	ND		ug/l	62	18.	25
1,2,3-Trichlorobenzene	ND		ug/l	62	18.	25
1,2,4-Trichlorobenzene	ND		ug/l	62	18.	25
Methyl Acetate	ND		ug/l	50	5.8	25
Cyclohexane	ND		ug/l	250	6.1	25
1,4-Dioxane	ND		ug/l	6200	1000	25
Freon-113	ND		ug/l	62	18.	25
Methyl cyclohexane	ND		ug/l	250	7.2	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	97		70-130

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS**

**Lab ID:** L1417195-05  
**Client ID:** MW-13  
**Sample Location:** 2137 SENECA ST. BUFFALO, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 08/02/14 20:44  
**Analyst:** PD

**Date Collected:** 07/31/14 15:28  
**Date Received:** 07/31/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	16		ug/l	1.0	0.33	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	0.52		ug/l	0.50	0.17	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS****Lab ID:** L1417195-05**Date Collected:** 07/31/14 15:28**Client ID:** MW-13**Date Received:** 07/31/14**Sample Location:** 2137 SENECA ST. BUFFALO, NY**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	2.5		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	16		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.0	1
Carbon disulfide	2.1	J	ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.24	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.29	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	96		70-130

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS**

**Lab ID:** L1417195-06      D  
**Client ID:** PZ-A  
**Sample Location:** 2137 SENECA ST. BUFFALO, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 08/02/14 23:01  
**Analyst:** PD

**Date Collected:** 07/31/14 15:40  
**Date Received:** 07/31/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	62	18.	25
1,1-Dichloroethane	ND		ug/l	62	18.	25
Chloroform	ND		ug/l	62	18.	25
Carbon tetrachloride	ND		ug/l	12	3.4	25
1,2-Dichloropropane	ND		ug/l	25	3.3	25
Dibromochloromethane	ND		ug/l	12	3.7	25
1,1,2-Trichloroethane	ND		ug/l	38	12.	25
Tetrachloroethene	ND		ug/l	12	4.5	25
Chlorobenzene	ND		ug/l	62	18.	25
Trichlorofluoromethane	ND		ug/l	62	18.	25
1,2-Dichloroethane	ND		ug/l	12	3.3	25
1,1,1-Trichloroethane	ND		ug/l	62	18.	25
Bromodichloromethane	ND		ug/l	12	4.8	25
trans-1,3-Dichloropropene	ND		ug/l	12	4.1	25
cis-1,3-Dichloropropene	ND		ug/l	12	3.6	25
Bromoform	ND		ug/l	50	16.	25
1,1,2,2-Tetrachloroethane	ND		ug/l	12	3.6	25
Benzene	ND		ug/l	12	4.0	25
Toluene	ND		ug/l	62	18.	25
Ethylbenzene	ND		ug/l	62	18.	25
Chloromethane	ND		ug/l	62	18.	25
Bromomethane	ND		ug/l	62	18.	25
Vinyl chloride	1500		ug/l	25	8.2	25
Chloroethane	ND		ug/l	62	18.	25
1,1-Dichloroethene	3.6	J	ug/l	12	3.5	25
trans-1,2-Dichloroethene	ND		ug/l	62	18.	25
Trichloroethene	ND		ug/l	12	4.4	25
1,2-Dichlorobenzene	ND		ug/l	62	18.	25
1,3-Dichlorobenzene	ND		ug/l	62	18.	25
1,4-Dichlorobenzene	ND		ug/l	62	18.	25

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS**

Lab ID: L1417195-06 D  
 Client ID: PZ-A  
 Sample Location: 2137 SENECA ST. BUFFALO, NY

Date Collected: 07/31/14 15:40  
 Date Received: 07/31/14  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	62	18.	25
p/m-Xylene	ND		ug/l	62	18.	25
o-Xylene	ND		ug/l	62	18.	25
cis-1,2-Dichloroethene	2800		ug/l	62	18.	25
Styrene	ND		ug/l	62	18.	25
Dichlorodifluoromethane	ND		ug/l	120	25.	25
Acetone	ND		ug/l	120	25.	25
Carbon disulfide	ND		ug/l	120	25.	25
2-Butanone	ND		ug/l	120	25.	25
4-Methyl-2-pentanone	ND		ug/l	120	25.	25
2-Hexanone	ND		ug/l	120	25.	25
Bromochloromethane	ND		ug/l	62	18.	25
1,2-Dibromoethane	ND		ug/l	50	16.	25
1,2-Dibromo-3-chloropropane	ND		ug/l	62	18.	25
Isopropylbenzene	ND		ug/l	62	18.	25
1,2,3-Trichlorobenzene	ND		ug/l	62	18.	25
1,2,4-Trichlorobenzene	ND		ug/l	62	18.	25
Methyl Acetate	ND		ug/l	50	5.8	25
Cyclohexane	ND		ug/l	250	6.1	25
1,4-Dioxane	ND		ug/l	6200	1000	25
Freon-113	ND		ug/l	62	18.	25
Methyl cyclohexane	ND		ug/l	250	7.2	25

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	99		70-130

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS**

**Lab ID:** L1417195-07      D  
**Client ID:** DUPLICATE  
**Sample Location:** 2137 SENECA ST. BUFFALO, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 08/02/14 23:35  
**Analyst:** PD

**Date Collected:** 07/31/14 15:13  
**Date Received:** 07/31/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	120	35.	50
1,1-Dichloroethane	ND		ug/l	120	35.	50
Chloroform	ND		ug/l	120	35.	50
Carbon tetrachloride	ND		ug/l	25	6.7	50
1,2-Dichloropropane	ND		ug/l	50	6.6	50
Dibromochloromethane	ND		ug/l	25	7.5	50
1,1,2-Trichloroethane	ND		ug/l	75	25.	50
Tetrachloroethene	ND		ug/l	25	9.1	50
Chlorobenzene	ND		ug/l	120	35.	50
Trichlorofluoromethane	ND		ug/l	120	35.	50
1,2-Dichloroethane	ND		ug/l	25	6.6	50
1,1,1-Trichloroethane	ND		ug/l	120	35.	50
Bromodichloromethane	ND		ug/l	25	9.6	50
trans-1,3-Dichloropropene	ND		ug/l	25	8.2	50
cis-1,3-Dichloropropene	ND		ug/l	25	7.2	50
Bromoform	ND		ug/l	100	32.	50
1,1,2,2-Tetrachloroethane	ND		ug/l	25	7.2	50
Benzene	ND		ug/l	25	7.9	50
Toluene	ND		ug/l	120	35.	50
Ethylbenzene	ND		ug/l	120	35.	50
Chloromethane	ND		ug/l	120	35.	50
Bromomethane	ND		ug/l	120	35.	50
Vinyl chloride	1500		ug/l	50	16.	50
Chloroethane	ND		ug/l	120	35.	50
1,1-Dichloroethene	ND		ug/l	25	7.1	50
trans-1,2-Dichloroethene	ND		ug/l	120	35.	50
Trichloroethene	11	J	ug/l	25	8.7	50
1,2-Dichlorobenzene	ND		ug/l	120	35.	50
1,3-Dichlorobenzene	ND		ug/l	120	35.	50
1,4-Dichlorobenzene	ND		ug/l	120	35.	50

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS**

Lab ID: L1417195-07 D  
 Client ID: DUPLICATE  
 Sample Location: 2137 SENECA ST. BUFFALO, NY

Date Collected: 07/31/14 15:13  
 Date Received: 07/31/14  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	120	35.	50
p/m-Xylene	ND		ug/l	120	35.	50
o-Xylene	ND		ug/l	120	35.	50
cis-1,2-Dichloroethene	4500		ug/l	120	35.	50
Styrene	ND		ug/l	120	35.	50
Dichlorodifluoromethane	ND		ug/l	250	50.	50
Acetone	ND		ug/l	250	50.	50
Carbon disulfide	ND		ug/l	250	50.	50
2-Butanone	ND		ug/l	250	50.	50
4-Methyl-2-pentanone	ND		ug/l	250	50.	50
2-Hexanone	ND		ug/l	250	50.	50
Bromochloromethane	ND		ug/l	120	35.	50
1,2-Dibromoethane	ND		ug/l	100	32.	50
1,2-Dibromo-3-chloropropane	ND		ug/l	120	35.	50
Isopropylbenzene	ND		ug/l	120	35.	50
1,2,3-Trichlorobenzene	ND		ug/l	120	35.	50
1,2,4-Trichlorobenzene	ND		ug/l	120	35.	50
Methyl Acetate	ND		ug/l	100	12.	50
Cyclohexane	ND		ug/l	500	12.	50
1,4-Dioxane	ND		ug/l	12000	2000	50
Freon-113	ND		ug/l	120	35.	50
Methyl cyclohexane	ND		ug/l	500	14.	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	98		70-130



**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS**

**Lab ID:** L1417195-08  
**Client ID:** TRIP  
**Sample Location:** 2137 SENECA ST. BUFFALO, NY  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 08/02/14 21:19  
**Analyst:** PD

**Date Collected:** 07/31/14 00:00  
**Date Received:** 07/31/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.33	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Trichloroethene	ND		ug/l	0.50	0.17	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**SAMPLE RESULTS****Lab ID:** L1417195-08**Date Collected:** 07/31/14 00:00**Client ID:** TRIP**Date Received:** 07/31/14**Sample Location:** 2137 SENECA ST. BUFFALO, NY**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.0	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Cyclohexane	ND		ug/l	10	0.24	1
1,4-Dioxane	ND		ug/l	250	41.	1
Freon-113	ND		ug/l	2.5	0.70	1
Methyl cyclohexane	ND		ug/l	10	0.29	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	96		70-130

Project Name: DOLLAR GENERAL/VCP

Lab Number: L1417195

Project Number: 07.007684/001

Report Date: 08/07/14

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 08/02/14 16:11  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG710835-3					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.33
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.17
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70

Project Name: DOLLAR GENERAL/VCP

Lab Number: L1417195

Project Number: 07.007684/001

Report Date: 08/07/14

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 08/02/14 16:11  
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG710835-3					
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.0
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
Methyl Acetate	ND		ug/l	2.0	0.23
Cyclohexane	ND		ug/l	10	0.24
1,4-Dioxane	ND		ug/l	250	41.
Freon-113	ND		ug/l	2.5	0.70
Methyl cyclohexane	ND		ug/l	10	0.29

**Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C

Analytical Date: 08/02/14 16:11

Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-08 Batch: WG710835-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	97		70-130

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DOLLAR GENERAL/VCP

**Project Number:** 07.007684/001

**Lab Number:** L1417195

**Report Date:** 08/07/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG710835-1 WG710835-2								
Methylene chloride	96		92		70-130	4		20
1,1-Dichloroethane	100		96		70-130	4		20
Chloroform	99		95		70-130	4		20
2-Chloroethylvinyl ether	122		112		70-130	9		20
Carbon tetrachloride	95		88		63-132	8		20
1,2-Dichloropropane	102		98		70-130	4		20
Dibromochloromethane	96		91		63-130	5		20
1,1,2-Trichloroethane	101		97		70-130	4		20
Tetrachloroethene	99		94		70-130	5		20
Chlorobenzene	103		98		75-130	5		20
Trichlorofluoromethane	95		88		62-150	8		20
1,2-Dichloroethane	97		95		70-130	2		20
1,1,1-Trichloroethane	97		92		67-130	5		20
Bromodichloromethane	99		95		67-130	4		20
trans-1,3-Dichloropropene	100		94		70-130	6		20
cis-1,3-Dichloropropene	102		98		70-130	4		20
1,1-Dichloropropene	97		94		70-130	3		20
Bromoform	97		90		54-136	7		20
1,1,2,2-Tetrachloroethane	102		96		67-130	6		20
Benzene	102		98		70-130	4		20
Toluene	103		99		70-130	4		20

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DOLLAR GENERAL/VCP

**Lab Number:** L1417195

**Project Number:** 07.007684/001

**Report Date:** 08/07/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG710835-1 WG710835-2								
Ethylbenzene	108		103		70-130	5		20
Chloromethane	85		81		64-130	5		20
Bromomethane	96		95		39-139	1		20
Vinyl chloride	98		93		55-140	5		20
Chloroethane	100		94		55-138	6		20
1,1-Dichloroethene	99		92		61-145	7		20
trans-1,2-Dichloroethene	98		92		70-130	6		20
Trichloroethene	100		95		70-130	5		20
1,2-Dichlorobenzene	104		98		70-130	6		20
1,3-Dichlorobenzene	104		98		70-130	6		20
1,4-Dichlorobenzene	103		98		70-130	5		20
Methyl tert butyl ether	102		97		63-130	5		20
p/m-Xylene	108		103		70-130	5		20
o-Xylene	110		105		70-130	5		20
cis-1,2-Dichloroethene	101		95		70-130	6		20
Dibromomethane	96		96		70-130	0		20
1,2,3-Trichloropropane	98		94		64-130	4		20
Acrylonitrile	94		95		70-130	1		20
Isopropyl Ether	102		99		70-130	3		20
tert-Butyl Alcohol	79		85		70-130	7		20
Styrene	114		110		70-130	4		20

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: DOLLAR GENERAL/VCP

Project Number: 07.007684/001

Lab Number: L1417195

Report Date: 08/07/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG710835-1 WG710835-2								
Dichlorodifluoromethane	86		81		36-147	6		20
Acetone	80		76		58-148	5		20
Carbon disulfide	95		90		51-130	5		20
2-Butanone	73		69		63-138	6		20
Vinyl acetate	94		88		70-130	7		20
4-Methyl-2-pentanone	94		92		59-130	2		20
2-Hexanone	91		87		57-130	4		20
Acrolein	98		92		40-160	6		20
Bromochloromethane	104		100		70-130	4		20
2,2-Dichloropropane	91		84		63-133	8		20
1,2-Dibromoethane	100		96		70-130	4		20
1,3-Dichloropropane	101		96		70-130	5		20
1,1,1,2-Tetrachloroethane	102		98		64-130	4		20
Bromobenzene	104		99		70-130	5		20
n-Butylbenzene	104		99		53-136	5		20
sec-Butylbenzene	109		103		70-130	6		20
tert-Butylbenzene	107		100		70-130	7		20
o-Chlorotoluene	107		101		70-130	6		20
p-Chlorotoluene	107		102		70-130	5		20
1,2-Dibromo-3-chloropropane	93		86		41-144	8		20
Hexachlorobutadiene	99		93		63-130	6		20



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** DOLLAR GENERAL/VCP

**Project Number:** 07.007684/001

**Lab Number:** L1417195

**Report Date:** 08/07/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG710835-1 WG710835-2								
Isopropylbenzene	106		100		70-130	6		20
p-Isopropyltoluene	106		100		70-130	6		20
Naphthalene	93		88		70-130	6		20
n-Propylbenzene	110		104		69-130	6		20
1,2,3-Trichlorobenzene	95		91		70-130	4		20
1,2,4-Trichlorobenzene	94		90		70-130	4		20
1,3,5-Trimethylbenzene	108		102		64-130	6		20
1,2,4-Trimethylbenzene	107		101		70-130	6		20
Methyl Acetate	81		82		70-130	1		20
Ethyl Acetate	96		93		70-130	3		20
Cyclohexane	99		94		70-130	5		20
Ethyl-Tert-Butyl-Ether	106		100		70-130	6		20
Tertiary-Amyl Methyl Ether	104		99		66-130	5		20
1,4-Dioxane	94		94		56-162	0		20
Freon-113	94		90		70-130	4		20
1,4-Diethylbenzene	106		102		70-130	4		20
4-Ethyltoluene	111		104		70-130	7		20
1,2,4,5-Tetramethylbenzene	105		99		70-130	6		20
Ethyl ether	98		93		59-134	5		20
trans-1,4-Dichloro-2-butene	92		87		70-130	6		20
Iodomethane	98		98		70-130	0		20

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DOLLAR GENERAL/VCP**Lab Number:** L1417195**Project Number:** 07.007684/001**Report Date:** 08/07/14

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-08 Batch: WG710835-1 WG710835-2								
Methyl cyclohexane	98		92		70-130	6		20

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	94		93		70-130
Toluene-d8	100		99		70-130
4-Bromofluorobenzene	103		103		70-130
Dibromofluoromethane	98		98		70-130

Project Name: DOLLAR GENERAL/VCP

Lab Number: L1417195

Project Number: 07.007684/001

Report Date: 08/07/14

## Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

## Cooler Information Custody Seal

## Cooler

A Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1417195-01A	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-01B	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-01C	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-02A	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-02B	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-02C	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-03A	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-03B	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-03C	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-04A	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-04B	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-04C	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-05A	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-05B	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-05C	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-06A	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-06B	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-06C	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-07A	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-07B	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-07C	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-08A	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)
L1417195-08B	Vial HCl preserved	A	N/A	2.6	Y	Absent	NYTCL-8260(14)

\*Values in parentheses indicate holding time in days



**Project Name:** DOLLAR GENERAL/VCP  
**Project Number:** 07.007684/001

**Lab Number:** L1417195  
**Report Date:** 08/07/14

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** DOLLAR GENERAL/VCP  
**Project Number:** 07.007684/001

**Lab Number:** L1417195  
**Report Date:** 08/07/14

**Data Qualifiers**

- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



**Project Name:** DOLLAR GENERAL/VCP  
**Project Number:** 07.007684/001

**Lab Number:** L1417195  
**Report Date:** 08/07/14

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certification Information

Last revised April 15, 2014

**The following analytes are not included in our NELAP Scope of Accreditation:**

### **Westborough Facility**

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

**EPA 8330A/B:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

### **Mansfield Facility**

**EPA 8270D:** Biphenyl.

**EPA 2540D:** TSS

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:**

### **Drinking Water**

**EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Tl; **EPA 200.7:** Ba, Be, Ca, Cd, Cr, Cu, Na; **EPA 245.1:** Mercury;

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO<sub>3</sub>-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.

### **Non-Potable Water**

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Tl, Zn;

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Ti, Tl, V, Zn;

**EPA 245.1, SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC,**

**SM426C, SM4500NH<sub>3</sub>-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO<sub>3</sub>-F,**

**EPA 353.2:** Nitrate-N, **SM4500NH<sub>3</sub>-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4,**

**SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**


**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables); **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 <b>NEW YORK CHAIN OF CUSTODY</b>		<b>Service Centers</b> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <div style="border: 1px solid black; padding: 2px; display: inline-block;">1 of 1</div>		Date Rec'd in Lab <b>8/1/14</b>		ALPHA Job # <b>LM17195</b>							
		Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		<b>Project Information</b> Project Name: <b>Dollar General/vep</b> Project Location: <b>2137 Jensen Dr, BURL. NY.</b> Project # _____ (Use Project name as Project #) <input type="checkbox"/>		<b>Deliverables</b> <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other _____		<b>Billing Information</b> <input checked="" type="checkbox"/> Same as Client Info PO # _____					
<b>Client Information</b> Client: <b>Applus ETO/Quality Inspection</b> Address: <b>4400 Broadway</b> <b>Darien, NJ 14043</b> Phone: <b>716-686-3110 ext 130</b> Fax: _____ Email: <b>andrew.kucera@applus.com</b>		<b>Project Manager:</b> <b>Andrew J. Kucera</b> <b>ALPHAQuote #:</b> _____ <b>Turn-Around Time</b> Standard <input checked="" type="checkbox"/> <b>8/7/14</b> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days: _____		<b>Regulatory Requirement</b> <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other _____ <input type="checkbox"/> NY Unrestricted Use <input checked="" type="checkbox"/> <b>*</b> <input type="checkbox"/> NYC Sewer Discharge		<b>Disposal Site Information</b> Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other: _____									
These samples have been previously analyzed by Alpha <input type="checkbox"/>		<b>ANALYSIS</b>		<b>Sample Filtration</b> <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <b>Preservation</b> <input type="checkbox"/> Lab to do (Please Specify below) _____ <b>Sample Specific Comments</b>		Total Bottles									
Other project specific requirements/comments: _____		Please specify Metals or TAL. _____		_____											
<b>ALPHA Lab ID</b> (Lab Use Only)		<b>Sample ID</b>		<b>Collection</b> Date    Time		<b>Sample Matrix</b>		<b>Sampler's Initials</b>		<b>ANALYSIS</b>		<b>Sample Specific Comments</b>		Total Bottles	
12145		MW-2		7/31/14 15:00		GW		JK		✓		✓			Check Test Method
		MW-4		15:15						✓		✓			
		MW-4A		15:17						✓		✓			
		MW-11		15:33						✓		✓			
		MW-13		15:38						✓		✓			
		P2-A		15:40						✓		✓			
		DUPLICATE		15:13						✓		✓			
		TRIP		-		-		JK		✓		✓			
Preservative Code: A = None B = HCl C = HNO <sub>3</sub> D = H <sub>2</sub> SO <sub>4</sub> E = NaOH F = MeOH G = NaHSO <sub>4</sub> H = Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type <b>VOL</b>		Preservative <b>HCL</b>		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)					
Relinquished By: <b>Andrew J. Kucera</b>		Date/Time: <b>7/31/14 16:30</b>		Received By: <b>APL</b>		Date/Time: <b>7/31/14 16:30</b>									
<b>R. FRENCIA</b>		<b>7/31/14 19:20</b>		<b>R. FRENCIA</b>		<b>7/31/14 19:20</b>									
<b>8/1/14 00:19</b>		<b>8/1/14 00:19</b>		<b>8/1/14 00:19</b>		<b>8/1/14 00:19</b>									





## ANALYTICAL REPORT

Lab Number:	L1418227
Client:	Quality Inspection Services Inc. 37 Franklin Street Suite 400 Buffalo, NY 14202
ATTN:	Andrew Kucserik
Phone:	(716) 853-2611
Project Name:	DOLLAR GENERAL
Project Number:	Not Specified
Report Date:	08/19/14

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

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Eight Walkup Drive, Westborough, MA 01581-1019  
508-898-9220 (Fax) 508-898-9193 800-624-9220 - [www.alphalab.com](http://www.alphalab.com)



**Project Name:** DOLLAR GENERAL  
**Project Number:** Not Specified

**Lab Number:** L1418227  
**Report Date:** 08/19/14

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Matrix</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>	<b>Receive Date</b>
L1418227-01	DRUM-D-1	WATER	2137 SENECA ST.	08/12/14 14:45	08/12/14

**Project Name:** DOLLAR GENERAL**Lab Number:** L1418227**Project Number:** Not Specified**Report Date:** 08/19/14

### Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

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**Project Name:** DOLLAR GENERAL  
**Project Number:** Not Specified

**Lab Number:** L1418227  
**Report Date:** 08/19/14

**Case Narrative (continued)**

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

TCLP Volatiles

L1418227-01 has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Cristin Walker

Title: Technical Director/Representative

Date: 08/19/14

# ORGANICS

# **VOLATILES**

**Project Name:** DOLLAR GENERAL**Lab Number:** L1418227**Project Number:** Not Specified**Report Date:** 08/19/14**SAMPLE RESULTS**

**Lab ID:** L1418227-01      D  
**Client ID:** DRUM-D-1  
**Sample Location:** 2137 SENECA ST.  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 08/14/14 14:33  
**Analyst:** MM

**Date Collected:** 08/12/14 14:45  
**Date Received:** 08/12/14  
**Field Prep:** Not Specified

TCLP/SPLP Ext. Date: 08/13/14 12:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
TCLP Volatiles by EPA 1311 - Westborough Lab						
Chloroform	ND		ug/l	1.5	0.32	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
Tetrachloroethene	ND		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	1.0	0.36	2
1,2-Dichloroethane	ND		ug/l	1.0	0.26	2
Benzene	ND		ug/l	1.0	0.32	2
Vinyl chloride	3.8		ug/l	2.0	0.28	2
1,1-Dichloroethene	ND		ug/l	1.0	0.28	2
Trichloroethene	ND		ug/l	1.0	0.35	2
1,4-Dichlorobenzene	ND		ug/l	5.0	0.37	2
2-Butanone	ND		ug/l	10	3.9	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	101		70-130
dibromofluoromethane	102		70-130

Project Name: DOLLAR GENERAL

Lab Number: L1418227

Project Number: Not Specified

Report Date: 08/19/14

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 08/14/14 06:55

Analyst: MM

TCLP Extraction Date: 08/13/14 12:39

Extraction Date: 08/13/14 12:39

Parameter	Result	Qualifier	Units	RL	MDL
TCLP Volatiles by EPA 1311 - Westborough Lab for sample(s): 01 Batch: WG714036-3					
Chloroform	ND		ug/l	0.75	0.16
Carbon tetrachloride	ND		ug/l	0.50	0.13
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	0.50	0.18
1,2-Dichloroethane	ND		ug/l	0.50	0.13
Benzene	ND		ug/l	0.50	0.16
Vinyl chloride	ND		ug/l	1.0	0.14
1,1-Dichloroethene	ND		ug/l	0.50	0.14
Trichloroethene	ND		ug/l	0.50	0.18
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19
2-Butanone	ND		ug/l	5.0	1.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	103		70-130
dibromofluoromethane	103		70-130



# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** DOLLAR GENERAL

**Project Number:** Not Specified

**Lab Number:** L1418227

**Report Date:** 08/19/14

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
TCLP Volatiles by EPA 1311 - Westborough Lab Associated sample(s): 01 Batch: WG714036-1 WG714036-2								
Chloroform	96		95		70-130	1		20
Carbon tetrachloride	86		88		63-132	2		20
Tetrachloroethene	97		96		70-130	1		20
Chlorobenzene	95		96		75-130	1		25
1,2-Dichloroethane	94		94		70-130	0		20
Benzene	96		96		70-130	0		25
Vinyl chloride	90		90		55-140	0		20
1,1-Dichloroethene	99		100		61-145	1		25
Trichloroethene	98		99		70-130	1		25
1,4-Dichlorobenzene	96		96		70-130	0		20
2-Butanone	104		106		63-138	2		20

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>
1,2-Dichloroethane-d4	94		96		70-130
Toluene-d8	96		97		70-130
4-Bromofluorobenzene	99		99		70-130
dibromofluoromethane	101		101		70-130

# **INORGANICS & MISCELLANEOUS**

**Project Name:** DOLLAR GENERAL**Project Number:** Not Specified**Lab Number:** L1418227**Report Date:** 08/19/14**SAMPLE RESULTS**

Lab ID: L1418227-01  
Client ID: DRUM-D-1  
Sample Location: 2137 SENECA ST.  
Matrix: Water

Date Collected: 08/12/14 14:45  
Date Received: 08/12/14  
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
pH (H)	7.6		SU	-	NA	1	-	08/13/14 02:28	1,9040C	MR
Flash Point	>150		deg F	70	NA	1	-	08/18/14 18:31	1,1010	SB



**Lab Control Sample Analysis****Batch Quality Control****Project Name:** DOLLAR GENERAL**Project Number:** Not Specified**Lab Number:** L1418227**Report Date:** 08/19/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG713375-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG714854-1								
Flash Point	99		-			-		

**Lab Duplicate Analysis**  
Batch Quality Control

Project Name: DOLLAR GENERAL

Project Number: Not Specified

Lab Number: L1418227

Report Date: 08/19/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG713375-2 QC Sample: L1418227-01 Client ID: DRUM-D-1						
pH (H)	7.6	7.6	SU	0		5

**Project Name:** DOLLAR GENERAL**Project Number:** Not Specified**Lab Number:** L1418227**Report Date:** 08/19/14**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Reagent H2O Preserved Vials Frozen on:** NA**Cooler Information Custody Seal****Cooler**

A Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1418227-01A	Vial unpreserved	A	N/A	3.7	Y	Absent	TCLP-EXT-ZHE(14)
L1418227-01B	Vial unpreserved	A	N/A	3.7	Y	Absent	TCLP-EXT-ZHE(14)
L1418227-01C	Vial unpreserved	A	N/A	3.7	Y	Absent	TCLP-EXT-ZHE(14)
L1418227-01D	Plastic 120ml unpreserved	A	7	3.7	Y	Absent	PH-9040(1)
L1418227-01E	Plastic 500ml unpreserved	A	7	3.7	Y	Absent	FLASH()
L1418227-01Y	Vial unpreserved split	A	N/A	3.7	Y	Absent	TCLP-VOA(14)
L1418227-01Z	Vial unpreserved split	A	N/A	3.7	Y	Absent	TCLP-VOA(14)

\*Values in parentheses indicate holding time in days

**Project Name:** DOLLAR GENERAL  
**Project Number:** Not Specified

**Lab Number:** L1418227  
**Report Date:** 08/19/14

## GLOSSARY

### Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

### Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

### Terms

**Total:** With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

**Analytical Method:** Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

### Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.

**Report Format:** DU Report with 'J' Qualifiers



**Project Name:** DOLLAR GENERAL**Lab Number:** L1418227**Project Number:** Not Specified**Report Date:** 08/19/14**Data Qualifiers**

- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers





**Project Name:** DOLLAR GENERAL  
**Project Number:** Not Specified

**Lab Number:** L1418227  
**Report Date:** 08/19/14

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

## LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



## Certification Information

Last revised April 15, 2014

**The following analytes are not included in our NELAP Scope of Accreditation:**

### **Westborough Facility**

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

**EPA 8330A/B:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

### **Mansfield Facility**

**EPA 8270D:** Biphenyl.

**EPA 2540D:** TSS

**EPA TO-15:** Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

**The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:**

### **Drinking Water**

**EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Tl; **EPA 200.7:** Ba, Be, Ca, Cd, Cr, Cu, Na; **EPA 245.1:** Mercury;

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO<sub>3</sub>-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.

### **Non-Potable Water**

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Tl, Zn;

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Ti, Tl, V, Zn;

**EPA 245.1, SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC,**

**SM426C, SM4500NH<sub>3</sub>-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO<sub>3</sub>-F,**

**EPA 353.2:** Nitrate-N, **SM4500NH<sub>3</sub>-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4,**

**SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

**EPA 625:** SVOC (Acid/Base/Neutral Extractables); **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

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