

REMEDIAL INVESTIGATION REPORT

FOR

FORMER ZIP ZIP MINI MART

1410 ERIE BOULEVARD EAST

ENVIRONMENTAL RESTORATION PROGRAM (ERP)

NYSDEC SITE No. B00075

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April 2019

C&S Project No: 119.412.009

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EXECUTIVE SUMMARY

At the request of City of Syracuse, C&S Engineers, Inc. (C&S) has prepared this Remedial Investigation (RI or Investigation) Report for the former Zip Zip Mini Mart (Site) located at 1410 Erie Boulevard East in Syracuse, Onondaga County, New York. The scope of services for the Investigation was based on our January 25, 2019, proposal. The location of the Site is shown on **Figure 1**.

The objective of the Investigation is to complete the investigative phase of the Environmental Restoration Program (ERP) so that the City of Syracuse can complete its obligations under the existing State Assistance Contract (SAC). The fieldwork and related reporting are ultimately being completed in order to provide a basis for the New York State Department of Environmental Conservation (NYSDEC) to issue a Record of Decision (ROD) for the site.

Under the ERP, a RI was performed in 2000, and Interim Remedial Measures (IRMs) were completed in 2005 and 2008. NYSDEC Central Office also used an on-call environmental consultant to install five permanent groundwater monitoring wells in 2018. As part of the IRMs, numerous underground storage tanks (USTs) and building foundations were removed, as well as 10,000 gallons of petroleum contaminated liquids, and more than 1,700 tons of petroleum impacted soil. The extent of the IRMs is shown on **Figure 2**.

The scope of services for this Investigation included the following tasks:

- Review of historical environmental reports / documentation;
- Subsurface investigation of the geologic and hydrogeologic conditions of the Site;
- Collection and laboratory analytical testing of soil and groundwater samples;
- Evaluation of the findings of the investigation and analytical testing; and
- Discussion of the observed conditions on the Site.

C&S' Investigation was conducted on January 15, 16, and 18 and February 7 and 8, 2019. The following summarizes and discusses the results of this Investigation:

Surface / Near Surface Soil

Eight surface / near-surface soil samples were collected and analyzed for a combination of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, herbicides, poly-chlorinated biphenyls (PCBs), and metals. The purpose of the samples was to obtain a general level of information regarding contaminants present in the shallow soils across the Site.

One VOC, six SVOCs, one pesticide, and two metals exceeded the NYSDEC Part 375 Unrestricted-Use soil cleanup objectives (SCOs). Herbicides and PCBs were not detected. The majority of the exceedances are related to the 6" to 12" depth interval at SS-4, located on the northeast portion of the Site. This area is utilized by the adjacent landowner as an ingress / egress area into their building. In that same sample, three SVOCs exceeded their Commercial Use SCOs and one metal exceeded its Residential Restricted Use soil cleanup objective (SCO). With minor exception, the exceedances were in the same order of magnitude as the respective SCO. The types and concentrations of SVOCs and metals identified at SS-4 are characteristic of a commercial / industrial area. No physical indications of contamination such as staining or odors were noted.

Due to previous IRMs, the large portion of the site is backfilled with virgin quarry material and is not expected to contain contaminants at concentrations that would not be compatible with the future use of the site for commercial purposes.

Surface soil sample locations and lab data are shown on **Figure 3**.

Subsurface Soil

A total of six soil borings were advanced and 15 soil samples were collected and analyzed for a combination of VOC, SVOC, pesticides, herbicides, and metals. The purpose of the samples was to ascertain the location and nature of residual petroleum impacts relative to the previously completed IRMs.

Physical observations of petroleum impacts (odors and staining) were observed in borings SB-1, SB-3, SB-4, and SB-5, all of which were advanced along the perimeter of previous IRM excavations. In these areas, soils emitted low levels of volatile organic vapors (VOV) as measured by a photoionization detector (PID). Readings ranged from negligible to 60 parts per million (ppm). Corresponding lab data for these soils indicates that VOCs and SVOCs are present at low levels. The benzene, ethylbenzene, methylene chloride, and xylene concentrations at SB-3 exceed their respective Part 375 Unrestricted Use SCOs / Commissioner Policy 51 (CP-51) soil cleanup levels (SCLs) in the 10' to 20' depth interval. However, the concentrations are less than Residential Use SCOs. No SVOCs exceeded a SCO.

Two metals (mercury and nickel) slightly exceeded their Unrestricted Use SCOs at two locations.

Soil borings / subsurface soil sample locations and lab data are shown on **Figure 3**.

Groundwater

A total of three temporary groundwater monitoring wells were installed, two previously installed wells were located, and five total wells were sampled and analyzed for VOCs, SVOCs, and metals (total and filtered).

Benzene, toluene, ethylbenzene, and xylenes (BTEX), as well as isopropylbenzene, exceeded Technical and Operational Guidance Series 1.1.1 (TOGS) groundwater standards at TW-1. Besides isopropylbenzene, the concentrations were at least an order of magnitude greater than TOGS. The total VOC concentration in TW-1 was approximately 700 ppb. BTEX compounds did not exceed TOGS in the other wells. BTEX compounds are present in the subsurface soil (10' – 20') at TW-1.

Methyl tert butyl ether (MTBE) was detected in each well and exceeded TOGS at MW-2, TW-2, and MW-4, all of which are located on the western portion of the Site. MTBE concentrations range from 0.70 ppb at TW-3 to 73 ppb at MW-2. MTBE did not exceed the Unrestricted Use / CP-51 SCO / SCL in the Site soil.

Monitoring wells and lab data are shown on **Figure 4**.

1.0 INTRODUCTION

At the request of City of Syracuse, C&S Engineers, Inc. (C&S) has prepared this Remedial Investigation (RI or Investigation) Report for the former Zip Zip Mini Mart (Site) located at 1410 Erie Boulevard East in Syracuse, Onondaga County, New York. The scope of services for the Investigation was based on our January 25, 2019 proposal. The location of the Site is shown on **Figure 1**. The investigation was performed generally consistent with 6 NYCRR Part 375, Environmental Remediation Programs and DER-10 Technical Guidance for Site Investigation and Remediation.

The objective of the Investigation is to complete the investigative phase of the Environmental Restoration Program (ERP) so that the City of Syracuse can complete its obligations under the existing State Assistance Contract (SAC). The fieldwork and related reporting are ultimately being completed in order to provide a basis for the New York State Department of Environmental Conservation (NYSDEC) to issue a Record of Decision (ROD) for the site.

The scope of services for this Investigation included the following tasks:

- Review of historical environmental reports / documentation;
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- Evaluation of the findings of the investigation and analytical testing; and
- Discussion of the observed conditions on the Site.

2.0 **SITE DESCRIPTION**

The following sections include a description of the location, site characteristics, and land use in the vicinity of the Site.

2.1 **Location and Legal Description**

The Site is 1.14 acres, identified as tax parcel 031.-08-02.0, and is owned by the City of Syracuse. The property is located at 1410 Erie Boulevard East along the eastern side of the City of Syracuse. The Site is located in a dense commercial corridor. Proximate businesses include food establishments, a bank, municipal buildings, truck rental, and other miscellaneous businesses. An expansive residential area is located to the south. The location of the Site is shown on **Figure 1**.

The list below describes the roads located immediately surrounding the Site:

<i>North-</i>	Erie Boulevard
<i>East-</i>	Cherry Street
<i>South-</i>	East Washington Street
<i>West-</i>	South Beech Street

2.2 **Site Characteristics**

The Site is generally unremarkable and is characterized as a flat and vacant gravel parking lot, located along the south side of Erie Boulevard. The building located on the adjacent parcel to the east slightly encroaches onto the western portion of the Site.

2.3 **Background / Contamination Concerns**

The following is a brief narrative of the investigation and remedial work that has previously been performed at the Site by C&S:

- A site investigation was completed in July 2000. The investigation included the completion of 21 test pits, the advancement of six soil borings, and installation of four monitoring wells. Soil, groundwater, and floor drain sediments were collected for laboratory analysis. Evidence of up to six underground storage tanks (USTs) was observed.
 - Petroleum contamination was significant in the area of the former UST pump islands located along Erie Boulevard. More than two feet of free product (gasoline) was present in a monitoring well and soil contamination extended to 18 feet below grade in this area.
 - Contamination was also present in the vicinity of the USTs located on the southern portion of the Site, although it was less significant.

- Petroleum impacts were also noted adjacent to the former service station on the eastern portion of the Site, and extended to eight feet below grade.

- Interim Remedial Measures (IRMs) were performed in 2005 to address the abandoned USTs and residual soil contamination around the USTs.

- Subsequent IRMs were completed in 2008 to address the former dispenser area and former repair shop area. The remedial strategy was to excavate and properly dispose of petroleum impacted soils, subsurface structures, piping and equipment associated with previous use of the property as a gasoline service station. Soils that were visibly stained, that exhibited petroleum odors, or with measured levels of volatile organic vapors (VOVs) exceeding 20 parts per million (ppm) by a photoionization detector (PID), were loaded for disposal. Approximately 1,707 tons of petroleum contaminated soils and debris were removed from the site and disposed as non-hazardous industrial solid waste. In addition, a total of 10,422 gallons of petroleum contaminated liquids were collected and disposed off-site, including excavation de-watering fluids, and liquids extracted from a subsurface vault.

Figure 2 shows the vertical and horizontal extents of the 2005 and 2008 IRMs.

3.0 ENVIRONMENTAL SITE ASSESSMENT RATIONALE AND METHODS

3.1 Remedial Investigation Scope and Objectives

This Investigation was intended to document current subsurface conditions. The scope of services included:

- A subsurface investigation, which included the advancement of soil borings and installation of temporary groundwater monitoring wells.
- The collection of surface soil, subsurface soil, and groundwater samples.
- The laboratory analysis of the surface soil, subsurface soil, and groundwater samples.

Samples were collected to characterize surface soil, subsurface soil, and groundwater conditions and determine potential contaminant impacts in each medium.

Field activities were conducted on January 15, 16, and 18, and February 7 and 8, 2019.

3.2 Site Investigation Methods

3.2.1 Utility Clearing

Prior to intrusive investigation activities, DigSafe NY was notified to mark out public utilities that are located at the Site. Utilities were painted in the appropriate color, marked with flags and depths provided where possible. C&S endeavored to maintain a minimum setback of at least three feet from these utilities during our investigation.

3.2.2 Surface Soil Sample Collection

C&S collected surface soil samples representing the upper two inches as well as the 6-inch to 12-inch interval of soil below the hardscape or vegetative layer. Samples were collected with decontaminated stainless steel spoons or steel shovel. Non-disposable sampling equipment was decontaminated between sample locations to avoid potential cross contamination of samples. **Figure 2** shows the sample locations.

3.2.2.1 Field Screening

Each sample was scanned in the field with a Mini-Rae 3000 photo-ionization detector (“PID”) with a 10.6-volt lamp and the readings were recorded in a field notebook. Soil that was collected and set aside on ice for potential subsequent lab analysis was placed in air-tight plastic zip lock bags. Prior to collecting the sample,

the soil was screened in-situ and head space readings were collected to represent the interval being sampled.

3.2.2.2 Surface Soil Sample Collection

Surface soil samples were selected for lab analysis at pre-selected locations defined in C&S' work plan, dated December 13, 2018. The samples were placed into glassware provided by the laboratory and put on ice in a cooler. A total of eight surface soil samples (SS-1 through SS-4, 0"-2" and 6"-12" from each location) were collected by C&S on February 7 and 8, 2019. The samples were submitted for the following analysis:

<i>Sample ID</i>	<i>Analysis</i>
<i>SS-1 through SS-4 0" to 2"</i>	USEPA Target Compound List (TCL) semi-volatile organic compounds (SVOCs), Target Analyte List (TAL) metals
<i>SS-1 through SS-4 6" to 12"</i>	USEPA TCL volatile organic compounds (VOCs), SVOCs, Herbicides/Pesticides, PCBs and TAL metals

The samples were analyzed by TestAmerica of Buffalo, New York.

3.2.3 Soil Boring Advancement

C&S observed the drilling of soil borings by Northeast Specialized Drilling (NSD) on January 15 and 16, 2019. A total of six soil borings were advanced (boring ID numbers SB-1 through SB-6). Soil borings were advanced from the ground surface to approximately 20 feet below ground surface (bgs). However, refusal was encountered at approximately 18 feet bgs in three borings due to dense glacial till. Drilling was conducted using a track-mounted Geoprobe® drilling unit. Each boring location was continuously sampled using a two-inch by five-foot steel sampling tube fitted with a disposable acetate liner. Non-disposable sampling equipment was decontaminated between runs and between drill locations to avoid potential cross contamination of samples. **Figure 2** shows the boring locations.

Material description and physical evidence of petroleum contamination (staining or odors) of each direct push sample was recorded and organized into soil boring logs provided in **Appendix A**.

3.2.3.1 Field Screening

Each direct push sample was scanned in the field with a Mini-Rae 3000 photo-ionization detector ("PID") with a 10.6-volt lamp. The readings and corresponding depths are recorded on the soil boring logs provided in **Appendix A**. Soil that was

collected and set aside on ice for potential subsequent lab analysis was placed in air-tight plastic zip lock bags. Prior to collecting the sample, head space readings were conducted to represent the specific interval being sampled.

3.2.3.2 Soil Sample Collection

Generally, soil samples were selected for lab analysis based on physical evidence of petroleum impacts (e.g. staining, odor, PID readings) and depth. The samples were placed into glassware provided by the laboratory and put on ice in a cooler. A total of 15 soil samples were collected by C&S on January 15 and 16, 2019 and submitted for analysis. The samples were analyzed by TestAmerica of Buffalo, New York. The following is a sample log:

<i>Sample ID</i>	<i>VOCs</i>	<i>SVOCs</i>	<i>Pesticides</i>	<i>Herbicides</i>	<i>Metals</i>
<i>SB-1, 3'-5'</i>	X				
<i>SB-1, 5'-10'</i>	X	X	X	X	X
<i>SB-2, 0'-5'</i>		X			X
<i>SB-2, 5'-10'</i>	X				
<i>SB-2, 10'-15'</i>	X				
<i>SB-3, 0'-5'</i>		X			X
<i>SB-3, 10'-15'</i>	X				
<i>SB-3, 15'-20'</i>	X				
<i>SB-4, 0'-5'</i>	X				
<i>SB-4, 5'-10'</i>		X			X
<i>SB-4, 10'-15'</i>	X				
<i>SB-5, 5'-10'</i>	X	X			X
<i>SB-5, 10'-15'</i>	X				
<i>SB-6, 5'-10'</i>	X	X			X
<i>SB-6, 10'-15'</i>	X				

3.2.4 Groundwater Monitoring Well Installation

C&S observed the drilling and installation of temporary groundwater monitoring wells by NSD on January 16, 2019. A total of three one-inch groundwater monitoring wells were installed (TW-1 through TW-3). Drilling was conducted by advancing an approximate 2.5-inch diameter macrocore with a track-mounted Geoprobe® drilling

unit. Non-disposable sampling equipment was decontaminated between runs and between drill locations to avoid potential cross contamination of samples.

In addition, it was reported to C&S that in June 2018, GES under a contract with the NYSDEC Central Office, installed five permanent wells (MW-1 through MW-5) on the Site. MW-2 and MW-4 were located by C&S and sampled as part of this effort. It is believed that the remaining three wells were damaged / destroyed by winter snow plowing and therefore could not be located.

Figure 2 shows the well locations.

3.2.4.1 Well Construction

The temporary wells were installed within an approximate 2.5-inch diameter borehole, resulting from the completion of the test boring by the Geoprobe®. The screened interval consisted of 1-inch diameter 0.01 inch slotted PVC, positioned to straddle both the anticipated level of the water table and physical evidence of contamination, if applicable. Due to their temporary nature, the screened interval was not packed with sand and the wells were not sealed with bentonite. Groundwater was present at approximately five to 10 feet bgs.

3.2.4.2 Well Development and Sampling

Due to the temporary nature of the wells, well development was not attempted. However, approximately two to three well volumes of groundwater were removed prior to sampling in order to promote the infiltration of new groundwater through the well screen. The water remained turbid during sampling. A petroleum sheen and odor was evident on the groundwater from TW-1, MW-2, and TW-3. Free product was not present.

Water quality parameters were measured with a Horiba U-52-2 water meter during development / purging activities. Groundwater quality data stabilized prior to well sampling. The wells were sampled by hand bailing with a dedicated bailer for each well. The water quality field data is provided in **Appendix B**.

The samples were placed into glassware provided by the laboratory and put on ice in a cooler. A total of five groundwater samples were collected by C&S on January 18, 2019 and submitted for VOC, SVOC, and metals (total and filtered) analysis. The samples were analyzed by TestAmerica of Buffalo, New York.

3.2.5 Soil Vapor Sampling

C&S endeavored to collect soil vapor samples, as discussed in the work plan. However, the samples were compromised due to uncontrolled access to the Site and high groundwater. At the time of sample retrieval, both locations had been driven over by vehicles. In addition, the sample vials were frozen into the subsurface

because groundwater levels rose to near the surface subsequent to sample deployment.

3.3 Quality Control / Quality Assurance

Quality Assurance / Quality Control (QA/QC) samples were collected based on the following minimum number of samples per media type as defined in the work plan:

- Soil samples
 - Matrix Spike / Matrix Spike Duplicate (MS/MSD) – 5%
- Groundwater samples
 - Trip blank – 1 per shipment
 - Blind Duplicate – 5%
 - MS / MSD – 5%

A total of 23 soil samples were collected during the RI activities and one MS / MSD were collected meeting the 5% criteria.

A total of five groundwater samples were taken and one blind duplicate, one trip blank, and one MS / MSD were collected; also meeting the 5% criteria.

A third-party data consultant, Environmental Data Usability, prepared the Data Usability and Summary Report (“DUSR”) as required in the work plan. The DUSR is included as **Appendix D**. The following items were reviewed:

- Laboratory Narrative Discussion
- Custody Documentation
- Holding Times
- Surrogate Standard Recoveries
- Matrix Spike Recoveries. Duplicate Recoveries
- Blind Field Duplicate Correlations
- Preparation/calibration Blanks
- Laboratory Control Samples (LCSs)
- Calibration/Low Level Standards
- ICP Serial Dilution
- Instrument MDLs
- Sample Result Verification.

TestAmerica a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory, performed the analytical testing. The laboratory results for the samples were reported in a Category B deliverables package to facilitate validation of the data, and a third party validator reviewed the laboratory data and prepared a Data Usability and Summary Report (DUSR). The validator evaluated the analytical results for the field samples and

quality assurance / quality control samples and compared the findings to USEPA guidance to determine the accuracy and validity of the results.

4.0 RESULTS

4.1 Site Geology and Hydrogeology

4.1.1 Site Geology

Each soil sample retrieved from the Geoprobe® was observed for general soil type, estimated moisture content, and other pertinent features. The soils from borings were classified in the following simplified category:

<i>Asphalt or gravel surface, rocky fill material</i>	From ground surface to 1-2 feet bgs.
<i>Gray and brown sand, silt, and gravel</i>	From 1-2 feet bgs to 10 to 15 feet bgs.
<i>Very dense till</i>	From 15 feet bgs to 20 feet bgs

4.1.2 Site Hydrogeology

Due to the presence of coarse-grained materials, the monitoring wells generally produce plentiful groundwater. Groundwater elevation data was not collected to create a groundwater gradient map. However, previous studies indicate that groundwater flow is to the north, which coincides with the local topography and locations of surface waters.

4.2 Field Screening Results

Physical observations of impacts were observed in some of the borings. These observations were identified at the following locations and depths:

<i>Boring No</i>	<i>Location</i>	<i>Depth</i>	<i>Detectable PID Readings</i>	<i>Sheen</i>	<i>Staining</i>	<i>Odors</i>
SB-1	Northeast corner of 2008 IRM foundation excavation	2'-5'	2.7 ppm		X	Petro
SB-3	East edge of 2008 IRM dispenser excavation	5'-20'	15 to 60 ppm			Petro
SB-4	West edge of 2008 IRM dispenser excavation	5'-10'	10 ppm			Petro
SB-5	West edge of 2005 IRM UST excavation	0'-2'	0 ppm		X	

4.3 Laboratory Analytical Data

As discussed above, eight surface soil samples, 15 subsurface soil samples, and five groundwater samples were collected and analyzed. Summaries of the lab data as well as complete laboratory analytical reports are provided in **Appendix C**.

Soil Analytical Data

6 NYCRR Part 375-6, Remediation Program Soil Cleanup Objectives (SCO), effective December 14, 2006, includes SCOs that are based on protection of human health, groundwater, and ecological resources. The SCOs are based on the actual or intended site use.

The Unrestricted Use SCOs are considered to be representative of pre-release conditions unless an impact to ecological resources has been identified.

The Commercial Use SCOs apply to businesses with the primary purpose of buying, selling or trading of merchandise or services.

Commissioner Policy 51 (CP-51) provides the framework and procedures for the selection of soil cleanup levels (SCLs) appropriate for each of the remedial programs in the NYSDEC. CP-51 is used in conjunction with applicable statutes, regulations, and guidance, such as 6 NYCRR Part 375-6. Site-specific soil cleanup levels provided in CP-51 are generally applied after a site, or area of concern is fully investigated to determine the nature and extent of contaminant. CP-51 specifically includes SCLs for gasoline and fuel oil / diesel contaminated soils.

Because the contamination identified at the Site includes gasoline / diesel related impacts, the soil laboratory data generated as part of our Investigation was compared to CP-51 SCLs as a means of assessing environmental conditions at the site. The Unrestricted Use SCOs and CP-51 SCLs are the same for VOCs and SVOCs. The data was also compared to 6 NYCRR Part 375-6 Commercial Use SCOs due to the site's future likely use for commercial purposes.

Surface Soil Analytical Data

Comparison of the surface soil analytical data indicates:

- A total of four VOCs were detected at concentrations greater than laboratory detection limits. However, acetone is the only VOC that exceeded a SCO. The acetone concentration of 56 parts per billion (ppb) in the 6" – 12" interval in SS-4 slightly exceeded the Unrestricted Use / CP-51 SCO / SCL of 50 ppb.
- A total of 12 SVOCs were detected at concentrations greater than laboratory detection limits. Those that exceeded an SCO were limited to

the 6" – 12" interval in SS-4. There were three SVOCs that exceeded the Commercial Use SCOs. These included benzo(a)anthracene, benzo(a)pyrene, and benzo(b)fluoranthene.

- Only one pesticide was detected at a concentration greater than laboratory detection limits. The DDT concentration of 9.4 ppb in the 6" – 12" interval in SS-4 slightly exceeded the Unrestricted-Use SCO of 3.3 ppb.
- Herbicides were not detected at concentrations greater than laboratory detection limits.
- PCBs were not detected at concentrations greater than laboratory detection limits.
- Metals were detected at concentrations greater than laboratory detection limits in each sample. Lead exceeded the Unrestricted Use SCO in three samples and zinc exceeded the Unrestricted Use SCO in two samples. However, none of the concentrations exceeded the Commercial Use SCOs.

The locations of the soil samples and corresponding lab data are shown on **Figure 3**. Summaries of the laboratory data and laboratory analytical reports are provided in **Appendix C**.

Subsurface Soil Analytical Data

Comparison of the subsurface soil analytical data indicates:

- VOCs were detected at concentrations greater than laboratory detection limits in each sample. Five VOCs exceeded the Unrestricted Use / CP-51 SCOs / SCLs in six samples. However, no Commercial Use SCOs were exceeded
 - Acetone ranged in concentration from 52 to 110 ppb in SB-1, SB-2, and SB-6. The Unrestricted Use / CP-51 SCO / SCL is 50 ppb.
 - Benzene ranged in concentration from 1,000 to 1,100 ppb in the SB-3, 10'-15' and 15'-20' samples, respectively.
 - Ethylbenzene was present in the SB-3, 15'-20' sample at 3,600 ppb, compared to the Unrestricted Use / CP-51 SCO / SCL of 1,000 ppb.
 - Methylene chloride was present in the SB-3, 15'-20' sample at 68 ppb, compared to the Unrestricted Use / CP-51 SCO / SCL of 50 ppb.
 - Xylenes ranged in concentration from 3,900 to 20,000 ppb in the SB-3, 10'-15' and 15'-20' samples, respectively.

- Only one SVOC was detected at a concentration greater than laboratory detection limits. However, the SVOC concentration did not exceed its Unrestricted Use / CP-51 SCO / SCL.

- Pesticides were not detected at concentrations greater than laboratory detection limits.
- Herbicides were not detected at concentrations greater than laboratory detection limits.

- Metals were detected at concentrations greater than laboratory detection limits in each sample. Mercury exceeded the Unrestricted Use SCOs at one location and nickel exceeded the Unrestricted Use SCO in three samples. However, none of the concentrations exceeded the Commercial Use SCOs.

The locations of the soil borings / samples and corresponding lab data are shown on **Figure 3**. Summaries of the laboratory data and laboratory analytical reports are provided in **Appendix C**.

Groundwater Analytical Data

Technical and Operational Guidance Series 1.1.1 (TOGS 1.1.1) presents the NYSDEC Division of Water ambient water quality standards and guidance values and groundwater effluent limitations. The authority for these values is derived from Article 17 of the Environmental Conservation Law and 6 NYCRR Parts 700-706, Water Quality Regulations. The groundwater analytical data generated from this Investigation was compared to TOGS 1.1.1 Part I ambient standards and guidance values. Part II of the document describes and lists groundwater effluent limitations.

Comparison of the groundwater analytical data to the TOGs 1.1.1 Class GA Ambient Water Quality Standards indicates:

- VOCs were detected at concentrations greater than laboratory detection limits in each sample.
 - TW-1: Benzene, ethylbenzene, isopropylbenzene, toluene, and xylenes exceeded TOGS. Besides isopropylbenzene, the concentrations were at least an order of magnitude greater than TOGS. The total VOC concentration was approximately 700 ppb.
 - MW-2, TW-2, and MW-4: methyl tert butyl ether (MTBE) concentrations range from 14 (TW-2) to 73 ppb (MW-2).
 - TW-3: VOCs concentrations did not exceed TOGS.

- SVOCs were detected at concentrations greater than laboratory detection limits in TW-1.

- 2,4-dimethylphenol, naphthalene, and phenol slightly exceeded their respective groundwater standards. The total SVOC concentration was approximately 27 ppb.

- Metals were detected at concentrations greater than laboratory detection limits in each sample. However, none of the concentrations exceeded TOGS.

The locations of the groundwater wells and corresponding lab data are shown on **Figure 2**. Summaries of the laboratory data and laboratory analytical reports are provided in **Appendix C**.

5.0 DISCUSSION AND CONCLUSIONS

At the request of City of Syracuse, C&S Engineers, Inc. (C&S) has prepared this Remedial Investigation (RI or Investigation) Report for the former Zip Zip Mini Mart (Site) located at 1410 Erie Boulevard East in Syracuse, Onondaga County, New York. The scope of services for the Investigation was based on our January 25, 2019 proposal. The location of the Site is shown on **Figure 1**.

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C&S' Investigation was conducted on January 15, 16, and 18 and February 7 and 8, 2019. The following summarizes and discusses the results of this Investigation:

Surface / Near Surface Soil

Eight surface / near-surface soil samples were collected and analyzed for a combination of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, herbicides, poly-chlorinated biphenyls (PCBs), and metals. The purpose of the samples was to obtain a general level of information regarding contaminants present in the shallow soils across the Site.

One VOC, six SVOCs, one pesticide, and two metals exceeded the NYSDEC Part 375 Unrestricted-Use soil cleanup objectives (SCOs). Herbicides and PCBs were not detected. The majority of the exceedances are related to the 6" to 12" depth interval at SS-4, located on the northeast portion of the Site. This area is utilized by the adjacent landowner as an ingress / egress area into their building. In that same sample, three SVOCs exceeded their Commercial Use SCOs and one metal exceeded its Residential Restricted Use soil cleanup objective (SCO). With minor exception, the exceedances were in the same order of magnitude as the respective SCO. The types and concentrations of SVOCs and metals identified at SS-4 are characteristic of a commercial / industrial area. No physical indications of contamination such as staining or odors were noted.

Due to previous IRMs, the large portion of the site is backfilled with virgin quarry material and is not expected to contain contaminants at concentrations that would not be compatible with the future use of the site for commercial purposes.

Surface soil sample locations and lab data are shown on **Figure 3**.

Subsurface Soil

A total of six soil borings were advanced and 15 soil samples were collected and analyzed for a combination of VOC, SVOC, pesticides, herbicides, and metals. The purpose of the samples was to ascertain the location and nature of residual petroleum impacts relative to the previously completed IRMs.

Physical observations of petroleum impacts (odors and staining) were observed in borings SB-1, SB-3, SB-4, and SB-5, all of which were advanced along the perimeter of previous IRM excavations. In these areas, soils emitted low levels of volatile organic vapors (VOV) as measured by a photoionization detector (PID). Readings ranged from negligible to 60 parts per million (ppm). Corresponding lab data for these soils indicates that VOCs and SVOCs are present at low levels. The benzene, ethylbenzene, methylene chloride, and xylene concentrations at SB-3 exceed their respective Part 375 Unrestricted Use SCOs / Commissioner Policy 51 (CP-51) soil cleanup levels (SCLs) in the 10' to 20' depth interval. However, the concentrations are less than Residential Use SCOs. No SVOCs exceeded a SCO.

Two metals (mercury and nickel) slightly exceeded their Unrestricted Use SCOs at two locations.

Soil borings / subsurface soil sample locations and lab data are shown on **Figure 3**.

Groundwater

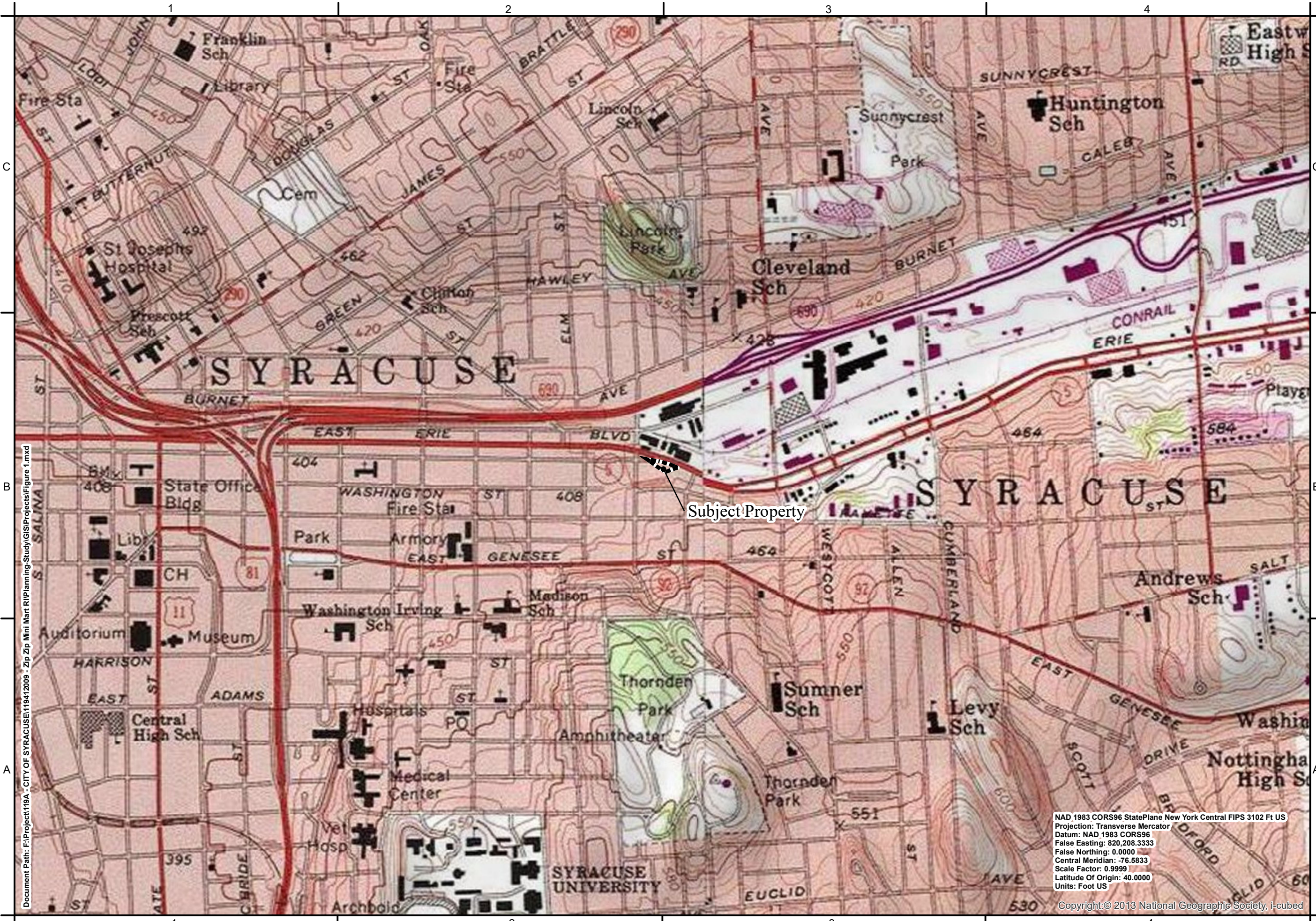
A total of three temporary groundwater monitoring wells were installed, two previously installed wells were located, and five total wells were sampled and analyzed for VOCs, SVOCs, and metals (total and filtered).

Benzene, toluene, ethylbenzene, and xylenes (BTEX), as well as isopropylbenzene, exceeded Technical and Operational Guidance Series 1.1.1 (TOGS) groundwater standards at TW-1. Besides isopropylbenzene, the concentrations were at least an order of magnitude greater than TOGS. The total VOC concentration in TW-1 was approximately 700 ppb. BTEX compounds did not exceed TOGS in the other wells. BTEX compounds are present in the subsurface soil (10' – 20') at TW-1.

Methyl tert butyl ether (MTBE) was detected in each well and exceeded TOGS at MW-2, TW-2, and MW-4, all of which are located on the western portion of the Site. MTBE concentrations range from 0.70 ppb at TW-3 to 73 ppb at MW-2. MTBE did not exceed the Unrestricted Use / CP-51 SCO / SCL in the Site soil.

Monitoring wells and lab data are shown on **Figure 4**.

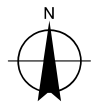
Figures



Document Path: F:\Project119A - CITY OF SYRACUSE\1194\2009 - Zip Mini Mart RPI\Planning-Study\GIS\Projects\Figure 1.mxd



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0 1,000 Feet
1 inch = 1,000 feet

Zip Zip Minimarket ERP Site
NYSDEC Site No. B00075
City of Syracuse, Onondaga County, New York

PROJECT NO:	119.412.009
DATE:	March 2019
SCALE:	AS SHOWN
DRAWN BY:	JTB
DESIGNED BY:	MLW
CHECKED BY:	MLW

NAD 1983 CORS96 StatePlane New York Central FIPS 3102 Ft US
Projection: Transverse Mercator
Datum: NAD 1983 CORS96
False Easting: 820,208.3333
False Northing: 0.0000
Central Meridian: -76.5833
Scale Factor: 0.9999
Latitude Of Origin: 40.0000
Units: Foot US

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SITE LOCATION

Figure 1

1 2 3 4

C

C

B

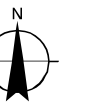
B

A

A



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0 20
Feet
1 inch = 20 feet

Zip Zip Minimarket ERP Site
NYSDEC Site No. B00075
City of Syracuse, Onondaga County, New York

PROJECT NO:	119.412.009
DATE:	April 2019
SCALE:	AS SHOWN
DRAWN BY:	JTB
DESIGNED BY:	MLW
CHECKED BY:	MLW

SITE MAP

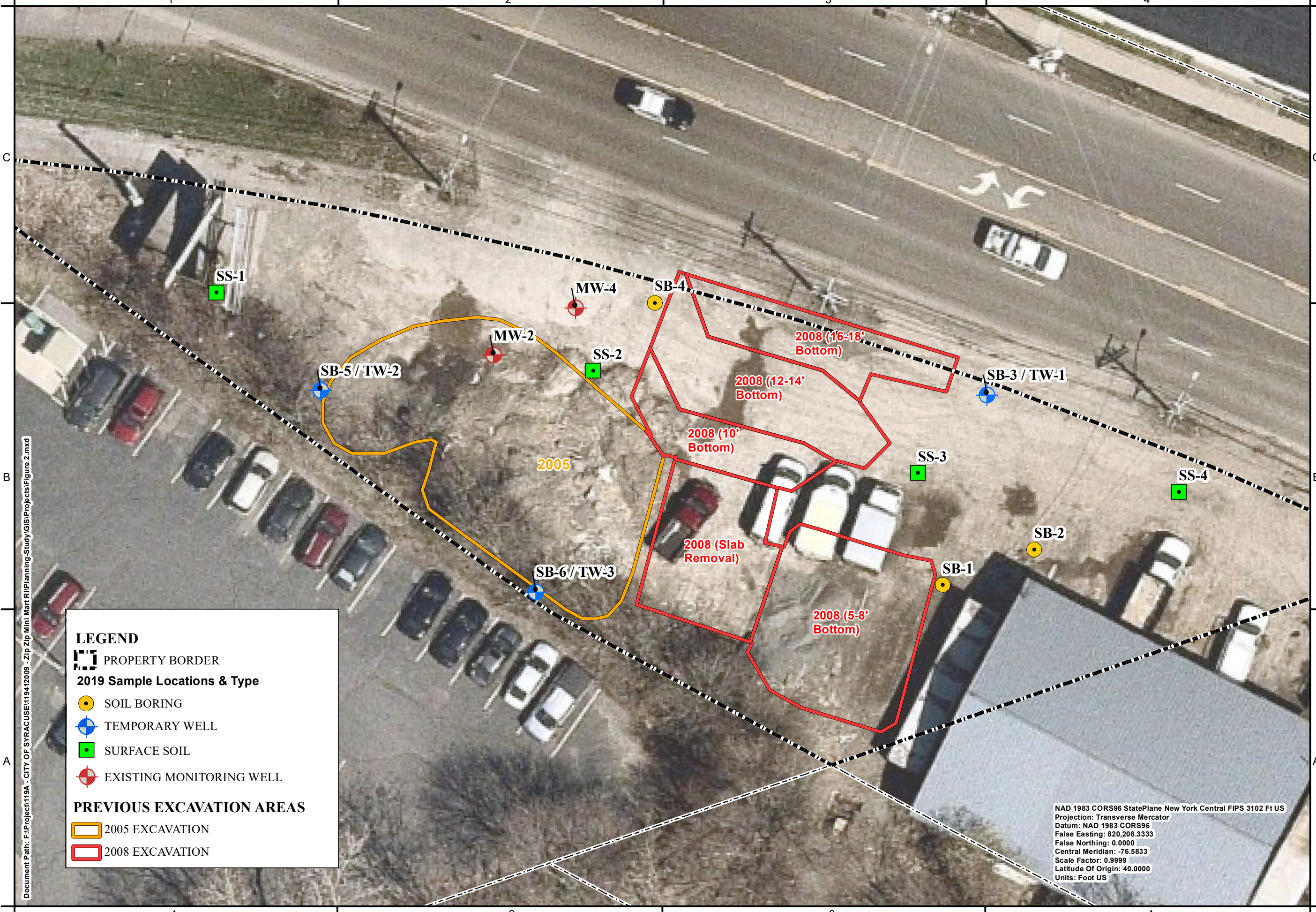
Figure 2

LEGEND

- PROPERTY BORDER
- 2019 Sample Locations & Type**
 - SOIL BORING
 - TEMPORARY WELL
 - SURFACE SOIL
 - EXISTING MONITORING WELL
- PREVIOUS EXCAVATION AREAS**
 - 2005 EXCAVATION
 - 2008 EXCAVATION

NAD 1983 CORS96 StatePlane New York Central FIPS 3102 Ft US
Projection: Transverse Mercator
Datum: NAD 1983 CORS96
False Easting: 820,208.3333
False Northing: 0.0000
Central Meridian: -76.5833
Scale Factor: 0.9999
Latitude Of Origin: 40.0000
Units: Foot US

Document Path: F:\Project\119A - CITY OF SYRACUSE\1194\2009 - Zip Zip Mini Mart RI\Planning-Study\GIS\Projects\Figure 2.mxd



1

2

3

4



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0 20 Feet
1 inch = 20 feet

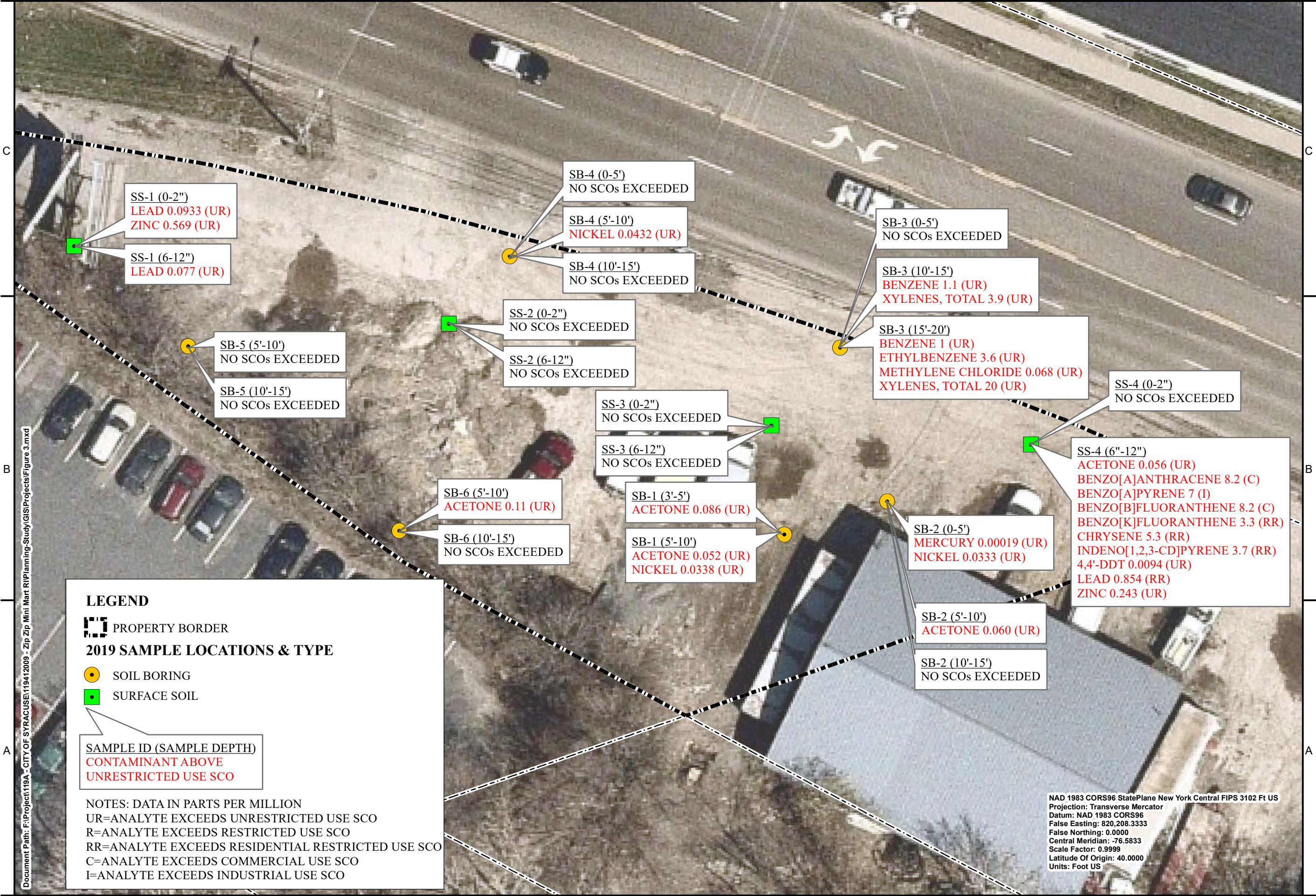
Zip Zip Minimarket ERP Site
NYSDEC Site No. B00075
City of Syracuse, Onondaga County, New York

PROJECT NO:	119.412.009
DATE:	March 2019
SCALE:	AS SHOWN
DRAWN BY:	JTB
DESIGNED BY:	MLW
CHECKED BY:	MLW

SOIL SAMPLING LOCATIONS

Figure 3

Document Path: F:\Project\119A - City of Syracuse\119412009 - Zip Zip Mini Mart RI\Planning-Study\GIS\Projects\Figure 3.mxd



LEGEND

- PROPERTY BORDER
- 2019 SAMPLE LOCATIONS & TYPE**
- SOIL BORING
- SURFACE SOIL

SAMPLE ID (SAMPLE DEPTH)
CONTAMINANT ABOVE
UNRESTRICTED USE SCO

NOTES: DATA IN PARTS PER MILLION
 UR=ANALYTE EXCEEDS UNRESTRICTED USE SCO
 R=ANALYTE EXCEEDS RESTRICTED USE SCO
 RR=ANALYTE EXCEEDS RESIDENTIAL RESTRICTED USE SCO
 C=ANALYTE EXCEEDS COMMERCIAL USE SCO
 I=ANALYTE EXCEEDS INDUSTRIAL USE SCO

NAD 1983 CORS96 StatePlane New York Central FIPS 3102 Ft US
 Projection: Transverse Mercator
 Datum: NAD 1983 CORS96
 False Easting: 820,208.3333
 False Northing: 0.0000
 Central Meridian: -76.5833
 Scale Factor: 0.9999
 Latitude Of Origin: 40.0000
 Units: Foot US

1

2

3

4

C

C

B

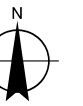
B

A

A



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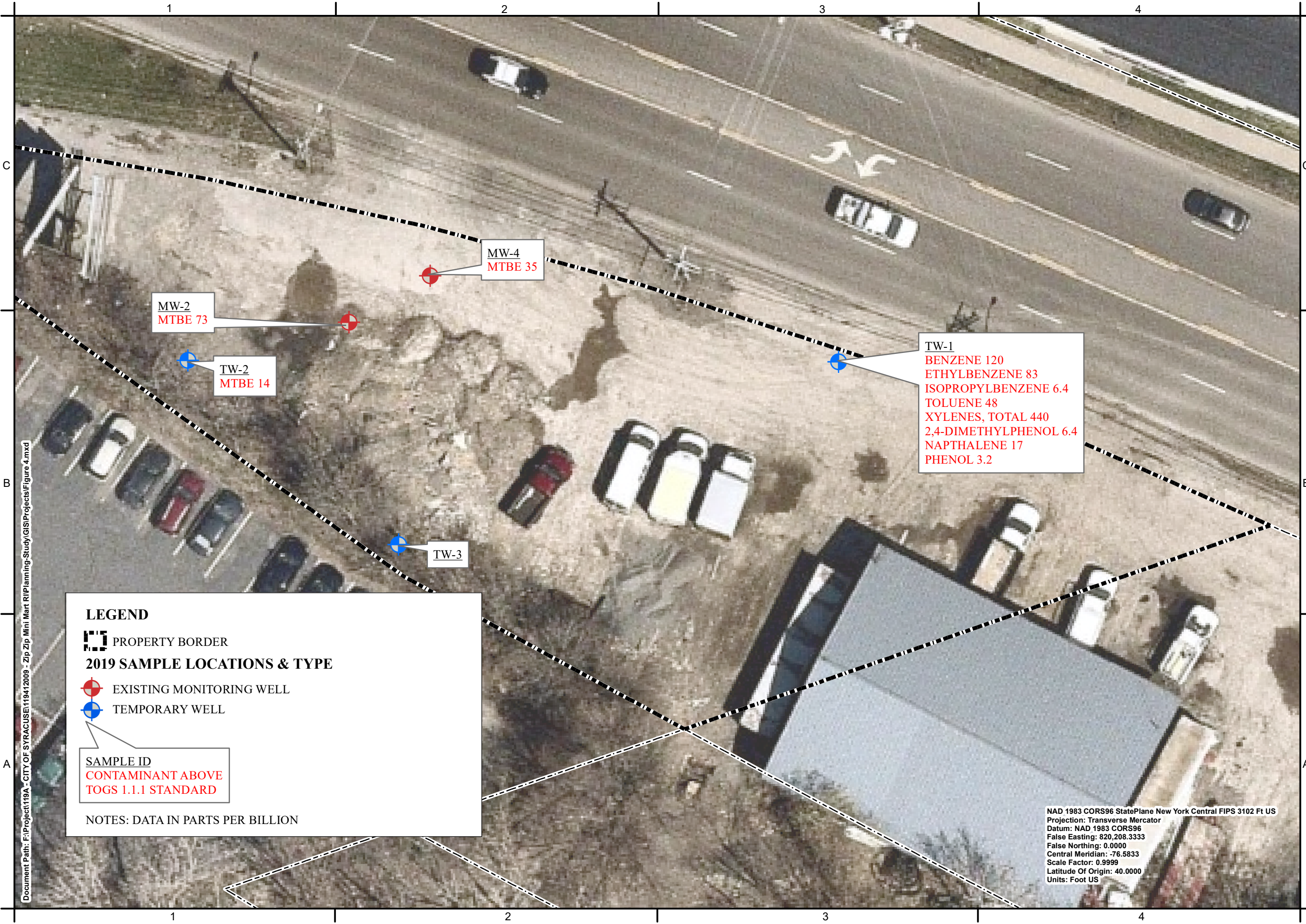
0 20 Feet
1 inch = 20 feet

Zip Zip Minimarket ERP Site
NYSDEC Site No. B00075
City of Syracuse, Onondaga County, New York

PROJECT NO:	119.412.009
DATE:	March 2019
SCALE:	AS SHOWN
DRAWN BY:	JTB
DESIGNED BY:	MLW
CHECKED BY:	MLW

GROUNDWATER SAMPLING LOCATIONS

Figure 4



MW-2
MTBE 73

TW-2
MTBE 14

TW-3

MW-4
MTBE 35

TW-1
 BENZENE 120
 ETHYLBENZENE 83
 ISOPROPYLBENZENE 6.4
 TOLUENE 48
 XYLENES, TOTAL 440
 2,4-DIMETHYLPHENOL 6.4
 NAPHTHALENE 17
 PHENOL 3.2

LEGEND

- PROPERTY BORDER
- 2019 SAMPLE LOCATIONS & TYPE**
- EXISTING MONITORING WELL
- TEMPORARY WELL

SAMPLE ID
 CONTAMINANT ABOVE
 TOGS 1.1.1 STANDARD

NOTES: DATA IN PARTS PER BILLION

NAD 1983 CORS96 StatePlane New York Central FIPS 3102 Ft US
 Projection: Transverse Mercator
 Datum: NAD 1983 CORS96
 False Easting: 820,208.3333
 False Northing: 0.0000
 Central Meridian: -76.5833
 Scale Factor: 0.9999
 Latitude Of Origin: 40.0000
 Units: Foot US

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Appendix A
Soil Boring Logs



C&S Engineers, Inc.
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BORING LOG

Boring No.	SB-1
Sheet 1 of:	1
Project No.:	119.412.009
Surface Elev.:	NA
Datum:	NA
Start Date:	1/15/19
Finish Date:	1/15/19
Inspector:	WNR

Project Name:	Former Zip Zip Mini Mart		
Location:	1410 Erie Blvd East, Syracuse, NY		
Client:	City of Syracuse		
Drilling Firm:	Northeast Specialized Drilling		
Groundwater	Depth	Date & Time	Drill Rig:
While Drilling:			Casing:
Before Casing Removal:			Sampler:
After Casing Removal:			Hammer:

Rock Core:		Undist:	
Other:			

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION <small>c - coarse m - medium f - fine S - Sand, \$ - Silt, G - Gravel, C - Clay, cly - clayey</small>	COMMENTS <small>a - and - 35-50% s - some - 20-35% l - little - 10-20% t - trace - 0-10%</small>
1				0-2 - Fill material with fine gravel	PID - 0.0 ppm
2				2-5 - Brown silt with fmc gravel, staining, slight odor	PID - 2.7 ppm
3					
4					
5					
6				5-10 - Very dense silt with some fmc gravel, dry	PID - 0.0 ppm
7					
8					
9					
10					
11				10-15 - Very dense gray silt (till), some fmc gravel	PID - 0.0 ppm
12					
13					
14					
15					
16				15-20 - Very dense gray till, some gravel	PID - 0.0 ppm
17					
18					
19				Refusal at 19.7'	
20					
21					
22					
23					



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BORING LOG

Boring No.

SB-2

Sheet 1 of:

1

Project No.:

119.412.009

Surface Elev.:

NA

Datum:

NA

Start Date:

1/16/19

Finish Date:

1/16/19

Inspector:

WNR

Project Name: Former Zip Zip Mini Mart

Location: 1410 Erie Blvd East, Syracuse, NY

Client: City of Syracuse

Drilling Firm: Northeast Specialized Drilling

Groundwater

Depth

Date & Time

Drill Rig:

While Drilling:

Casing:

Rock Core:

Undist:

Before Casing Removal:

Sampler:

Other:

After Casing Removal:

Hammer:

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION <small>c - coarse m - medium f - fine S - Sand, \$ - Silt, G - Gravel, C - Clay, cly - clayey</small>	COMMENTS <small>a - and - 35-50% s - some - 20-35% l - little - 10-20% t - trace - 0-10%</small>
1				0-3 - Fmc gray gravel and sand	PID - 0.0 ppm
2				3-5 - Gray silt with some fmc gravel	PID - 0.0 ppm
3					
4					
5					
6				5-10 - Brown silt with some fmc gravel	PID - 0.0 ppm
7					
8					
9					
10					
11				10-15 - Very dense brown till	PID - 0.0 ppm
12					
13					
14					
15					
16				15-20 - Very dense gray till	PID - 0.0 ppm
17					
18					
19					
20					
21				20-21.4 - Very dense gray till Refusal at 21.4'	
22					
23					



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BORING LOG

Boring No. SB-3
Sheet 1 of: 1
Project No.: 119.412.009

Project Name: Former Zip Zip Mini Mart			Surface Elev.: NA		
Location: 1410 Erie Blvd East, Syracuse, NY			Datum: NA		
Client: City of Syracuse			Start Date: 1/16/19		
Drilling Firm: Northeast Specialized Drilling			Finish Date: 1/16/19		
Groundwater	Depth	Date & Time	Drill Rig:	Inspector:	WNR
While Drilling:			Casing:	Rock Core:	Undist:
Before Casing Removal:			Sampler:	Other:	
After Casing Removal:			Hammer:		

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION <small>c - coarse m - medium f - fine S - Sand, \$ - Silt, G - Gravel, C - Clay, cly - clayey</small>	COMMENTS <small>a - and - 35-50% s - some - 20-35% l - little - 10-20% t - trace - 0-10%</small> (e.g., N-value, recovery, relative moisture, core run, RQD, % recovered)
1				0-3 - Fill	PID - 0.0 ppm
2				3-5 - Gray silt with some fmc gravel	PID - 0.0 ppm
3					
4					
5					
6				5-10 - gray silt with some fmc gravel	PID - 5.8 ppm
7					
8					
9					
10					
11				10-15 - Gray silt with some fmc gravel and sand, petroleum odor	PID - 34.2 ppm
12					
13					
14					
15					
16				15-20 - Very dense gray till	PID - 16 ppm
17					
18					
19					
20				TW-1 installed in SB-3. Screened interval 10' - 20'	
21					
22					
23					



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BORING LOG

Boring No.	SB-4
Sheet 1 of:	1
Project No.:	119.412.009
Surface Elev.:	NA
Datum:	NA
Start Date:	1/16/19
Finish Date:	1/16/19
Inspector:	WNR

Project Name:	Former Zip Zip Mini Mart		
Location:	1410 Erie Blvd East, Syracuse, NY		
Client:	City of Syracuse		
Drilling Firm:	Northeast Specialized Drilling		
Groundwater	Depth	Date & Time	Drill Rig:
While Drilling:			Casing:
Before Casing Removal:			Sampler:
After Casing Removal:			Hammer:

Rock Core:		Undist:	
Other:			

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION <small>c - coarse m - medium f - fine S - Sand, \$ - Silt, G - Gravel, C - Clay, cly - clayey</small>	COMMENTS <small>a - and - 35-50% s - some - 20-35% l - little - 10-20% t - trace - 0-10%</small>
1				0-5 - Fill with gray fmc gravel	PID - 0.0 ppm
2					
3					
4					
5					
6				5-10 - Gray fmc gravel with some silt, slight odor	PID - 9.8 ppm
7					
8					
9					
10					
11				10-15 - Gray silt with some fmc gravel	PID - 0.0 ppm
12					
13					
14					
15					
16				15-18 - Very dense gray till	PID - 0.0 ppm
17					
18				Refusal at 18'	
19					
20					
21					
22					
23					



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BORING LOG

Boring No.	SB-5
Sheet 1 of:	1
Project No.:	119.412.009
Surface Elev.:	NA
Datum:	NA
Start Date:	1/16/19
Finish Date:	1/16/19
Inspector:	WNR

Project Name:	Former Zip Zip Mini Mart		
Location:	1410 Erie Blvd East, Syracuse, NY		
Client:	City of Syracuse		
Drilling Firm:	Northeast Specialized Drilling		
Groundwater	Depth	Date & Time	Drill Rig:
While Drilling:			Casing:
Before Casing Removal:			Sampler:
After Casing Removal:			Hammer:

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION <small>c - coarse m - medium f - fine S - Sand, \$ - Silt, G - Gravel, C - Clay, cly - clayey</small>	COMMENTS <small>a - and - 35-50% s - some - 20-35% l - little - 10-20% t - trace - 0-10%</small>
1				0-2 - Black stained soil overburden with fmc gravel	PID - 0.0 ppm
2				2-5 - Tan and brown silt with some fmc gravel	PID - 0.0 ppm
3					
4					
5					
6				5-10 - Tan and brown silt with some fmc gravel and sand, wet	PID - 0.0 ppm
7					
8					
9					
10					
11				10-15 - Gray silt with some fmc gravel	PID - 0.0 ppm
12					
13					
14					
15					
16				15-18 - Very dense gray till	PID - 0.0 ppm
17					
18				Refusal at 18'	
19					
20					
21				TW-2 installed in SB-5. Screened interval 10' - 20'	
22					
23					



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BORING LOG

Boring No.	SB-6
Sheet 1 of:	1
Project No.:	119.412.009
Surface Elev.:	NA
Datum:	NA
Start Date:	1/16/19
Finish Date:	1/16/19
Inspector:	WNR

Project Name:	Former Zip Zip Mini Mart		
Location:	1410 Erie Blvd East, Syracuse, NY		
Client:	City of Syracuse		
Drilling Firm:	Northeast Specialized Drilling		
Groundwater	Depth	Date & Time	Drill Rig:
While Drilling:			Casing:
Before Casing Removal:			Sampler:
After Casing Removal:			Hammer:

(N -- No. of blows to drive sampler 12" w/140 lb. hammer falling 30" ASTM D-1586, Standard Penetration Test)

Depth (ft)	Sample No.	Symbol	Blows on Sampler per 6"	MATERIAL DESCRIPTION <small>c - coarse m - medium f - fine S - Sand, \$ - Silt, G - Gravel, C - Clay, cly - clayey</small>	COMMENTS <small>a - and - 35-50% s - some - 20-35% l - little - 10-20% t - trace - 0-10%</small>
1				0-1 - Asphalt pieces	PID - 0.0 ppm
2				1-5 - Fmc gravel and sand, some silt	PID - 0.0 ppm
3					
4					
5					
6				5-10 - Gray fmc gravel and sand, wet	PID - 0.0 ppm
7					
8					
9					
10					
11				10-15 - Gray silt, wet	PID - 0.0 ppm
12					
13					
14					
15					
16				15-18 - Very dense gray till with some fmc gravel	PID - 0.0 ppm
17					
18				Refusal at 18'	
19					
20					
21				TW-3 installed in SB-6. Screened interval 10' - 20'	
22					
23					

Appendix B
Water Quality Field Data



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Well Sampling Field Data Sheet

Well Casing Unit Volume (gal/l.f.)		
1 1/4" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name: City of Syracuse
 Site Name: Former Zip Zip Mini Mart
 Project No.: 119.412.009
 Field Staff: Angel Alejo

WELL DATA

Date		1/18/2019							
Well Number		TW-1							
Diameter (inches)		1							
Total Sounded Depth (feet)		19.2							
Static Water Level (feet)		11.1							
H ₂ O Column (feet)		8.1							
Pump Intake (feet)		na							
Well Volume (gallons)		0.648							
Amount to Evacuate (gallons)		1.94							
Amount Evacuated (gallons)		2							

FIELD READINGS

Date	Stabilization Criteria	1/18/2019	1/18/2019	1/18/2019	1/18/2019	1/18/2019			
Time		930	931	935	942	946			
Volume Extracted	gallons	0	0.5	1	1.5	2			
pH (Std. Units)	+/-0.1	8.06	8.17	7.87	7.79	7.8			
Conductivity (mS/cm)	3%	3.43	3.81	3.92	4.03	4.09			
Turbidity (NTU)	10%	> 999	> 999	> 999	> 999	> 999			
D.O. (mg/L)	10%	6.69	4.3	2.72	2.58	2.51			
Temperature (°C) (°F)	3%	13.5	12.47	12.1	12.6	11.57			
ORP ³ (mV)	+/-10 mv	-131	-192	-194	-190	-196			
Appearance		VT	VT	VT	VT	VT			
Free Product (Yes/No)		no	no	no	no	no			
Odor		petro	petro	petro	petro	petro			
Comments									

C = Clear T = Turbid ST = Semi Turbid VT = Very Turbid



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Well Sampling Field Data Sheet

Well Casing Unit Volume		
(gal/l.f.)		
1 1/4" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name: City of Syracuse
 Site Name: Former Zip Zip Mini Mart
 Project No.: 119.412.009
 Field Staff: Angel Alejo

WELL DATA

Date		1/18/2019							
Well Number		TW-2							
Diameter (inches)		1							
Total Sounded Depth (feet)		17.3							
Static Water Level (feet)		6.2							
H ₂ O Column (feet)		11.1							
Pump Intake (feet)		na							
Well Volume (gallons)		0.88							
Amount to Evacuate (gallons)		2.64							
Amount Evacuated (gallons)		2							

FIELD READINGS

Date	Stabilization Criteria	1/18/2019	1/18/2019	1/18/2019	1/18/2019	1/18/2019			
Time		1238	1246	1250	1252	1255			
Volume Extracted	gallons	0	0.5	1	1.5	2			
pH (Std. Units)	+/-0.1	7.89	7.55	7.58	7.5	7.56			
Conductivity (mS/cm)	3%	-4.2	2.58	2.58	2.56	2.57			
Turbidity (NTU)	10%	> 999	> 999	> 999	> 999	> 999			
D.O. (mg/L)	10%	2.22	3.15	3.25	3.2	3.09			
Temperature (°C) (°F)	3%	9.36	9.63	9.84	9.6	9.33			
ORP ³ (mV)	+/-10 mv	-15	-26	-29	-33	-31			
Appearance		VT	VT	VT	VT	VT			
Free Product (Yes/No)		no	no	no	no	no			
Odor		no	no	no	no	no			
Comments									

C = Clear T = Turbid ST = Semi Turbid VT = Very Turbid



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Well Sampling Field Data Sheet

Well Casing Unit Volume		
(gal/l.f.)		
1 1/4" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name: City of Syracuse
 Site Name: Former Zip Zip Mini Mart
 Project No.: 119.412.009
 Field Staff: Angel Alejo

WELL DATA

Date		1/18/2019							
Well Number		TW-3							
Diameter (inches)		1							
Total Sounded Depth (feet)		14							
Static Water Level (feet)		2.1							
H ₂ O Column (feet)		11.9							
Pump Intake (feet)		na							
Well Volume (gallons)		0.452							
Amount to Evacuate (gallons)		2.46							
Amount Evacuated (gallons)		2							

FIELD READINGS

Date	Stabilization Criteria	1/18/2019	1/18/2019	1/18/2019	1/18/2019	1/18/2019			
Time		1330	1334	1336	1338	1340			
Volume Extracted	gallons	0	0.5	1	1.5	2			
pH (Std. Units)	+/-0.1	7.54	7.47	7.38	7.24	7.33			
Conductivity (mS/cm)	3%	7.53	7.81	7.63	7.8	7.88			
Turbidity (NTU)	10%	> 999	> 999	> 999	> 999	> 999			
D.O. (mg/L)	10%	4.69	4.57	4.33	4.11	4			
Temperature (°C) (°F)	3%	7.03	6.79	7.44	7.84	8.03			
ORP ³ (mV)	+/-10 mv	-127	-141	-147	-144	-150			
Appearance		VT	VT	VT	VT	VT			
Free Product (Yes/No)		no	no	no	no	no			
Odor		petro	petro	petro	petro	petro			
Comments									

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Well Sampling Field Data Sheet

Well Casing Unit Volume (gal/l.f.)		
1 1/4" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name: City of Syracuse
 Site Name: Former Zip Zip Mini Mart
 Project No.: 119.412.009
 Field Staff: Angel Alejo

WELL DATA

Date		1/18/2019							
Well Number		MW-2							
Diameter (inches)		2							
Total Sounded Depth (feet)		17.5							
Static Water Level (feet)		9.8							
H ₂ O Column (feet)		7.7							
Pump Intake (feet)		na							
Well Volume (gallons)		1.309							
Amount to Evacuate (gallons)		3.92							
Amount Evacuated (gallons)		4							

FIELD READINGS

Date	Stabilization Criteria	1/18/2019	1/18/2019	1/18/2019	1/18/2019	1/18/2019			
Time		1143	1148	1150	1152	1154			
Volume Extracted	gallons	0	1	2	3	4			
pH (Std. Units)	+/-0.1	7.03	7.49	7.52	7.48	7.59			
Conductivity (mS/cm)	3%	5.19	5.02	4.85	4.59	4.48			
Turbidity (NTU)	10%	> 999	> 999	> 999	> 999	> 999			
D.O. (mg/L)	10%	6.41	6.11	4.57	4.72	4.78			
Temperature (°C) (°F)	3%	9.67	10.31	10.65	10.66	10.98			
ORP ³ (mV)	+/-10 mv	-38	-73	-85	-87	-92			
Appearance		VT	VT	VT	VT	VT			
Free Product (Yes/No)		no	no	no	no	no			
Odor		petro	petro	petro	petro	petro			
Comments									

C = Clear T = Turbid ST = Semi Turbid VT = Very Turbid



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Well Sampling Field Data Sheet

Well Casing Unit Volume		
(gal/l.f.)		
1 1/4" = 0.08	2" = 0.17	3" = 0.38
4" = 0.66	6" = 1.5	8" = 2.6

Client Name: City of Syracuse
 Site Name: Former Zip Zip Mini Mart
 Project No.: 119.412.009
 Field Staff: Angel Alejo

WELL DATA

Date		1/18/2019							
Well Number		MW-4							
Diameter (inches)		2							
Total Sounded Depth (feet)		17.4							
Static Water Level (feet)		8							
H ₂ O Column (feet)		9.4							
Pump Intake (feet)		na							
Well Volume (gallons)		1.59							
Amount to Evacuate (gallons)		4.79							
Amount Evacuated (gallons)		3							

FIELD READINGS

Date	Stabilization Criteria	1/18/2019	1/18/2019	1/18/2019	1/18/2019				
Time		1023	1027	1030	1035				
Volume Extracted	gallons	0	1	2	3				
pH (Std. Units)	+/-0.1	8.04	7.71	7.65	7.67				
Conductivity (mS/cm)	3%	3.12	3.14	3.26	3.24				
Turbidity (NTU)	10%	514	> 999	> 999	> 999				
D.O. (mg/L)	10%	6.04	3.06	3.05	3				
Temperature (°C) (°F)	3%	10.3	10.1	10.44	10.66				
ORP ³ (mV)	+/-10 mv	-85	-120	-118	-111				
Appearance		ST	VT	VT	VT				
Free Product (Yes/No)		no	no	no	no				
Odor		no	no	no	no				
Comments									

C = Clear T = Turbid ST = Semi Turbid VT = Very Turbid

Appendix C
Summaries of Lab Data & Laboratory
Analytical Reports

Table 1
 Zip Zip Mini Mart ERP Site
 Surface and Near Surface Soil Data Summary

Location ID	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial Use	Industrial Use	SS-1	SS-1	SS-2	SS-2	SS-3	SS-3	SS-4	SS-4
Sample Depth						0" - 2"	6" - 12"	0" - 2"	6" -12"	0" - 2"	6" - 12"	0" - 2"	6" - 12"
Date Sampled						02/07/2019	02/07/2019	02/07/2019	02/07/2019	2/8/2019	2/8/2019	2/8/2019	2/8/2019
Sample Matrix						Surface Soil	Near Surface Soil	Surface Soil	Near Surface Soil	Surface Soil	Near Surface Soil	Surface Soil	Near Surface Soil
VOCs													
1,1,1-Trichloroethane	680	100000	100000	500000	1000000	--	ND	--	ND	--	ND H	--	ND H
1,1,2,2-Tetrachloroethane						--	ND	--	ND	--	ND H	--	ND H
1,1,2-Trichloroethane						--	ND	--	ND	--	ND H	--	ND H
1,1,2-Trichloro-1,2,2-trifluoroethane						--	ND	--	ND	--	ND H	--	ND H
1,1-Dichloroethane	270	19000	26000	240000	480000	--	ND	--	ND	--	ND H	--	ND H
1,1-Dichloroethene	330	100000	100000	500000	1000000	--	ND	--	ND	--	ND H	--	ND H
1,2,4-Trichlorobenzene						--	ND	--	ND	--	ND H	--	ND H
1,2-Dibromo-3-Chloropropane						--	ND	--	ND	--	ND H	--	ND H
1,2-Dichlorobenzene	1100	100000	100000	500000	1000000	--	ND	--	ND	--	ND H	--	ND H
1,2-Dichloroethane	20	2300	3100	30000	60000	--	ND	--	ND	--	ND H	--	ND H
1,2-Dichloropropane						--	ND	--	ND	--	ND H	--	ND H
1,3-Dichlorobenzene	2400	17000	49000	280000	560000	--	ND	--	ND	--	ND H	--	ND H
1,4-Dichlorobenzene	1800	9800	13000	130000	250000	--	ND	--	ND	--	ND H	--	ND H
2-Butanone (MEK)	120	100000	100000	500000	1000000	--	ND	--	ND	--	ND H	--	ND H
2-Hexanone						--	ND	--	ND	--	ND H	--	ND H
4-Methyl-2-pentanone (MIBK)						--	ND	--	ND	--	ND H	--	ND H
Acetone	50	100000	100000	500000	1000000	--	15 J	--	ND	--	13 JH	--	56 HB
Benzene	60	2900	4800	44000	89000	--	ND	--	ND	--	ND H	--	5.2 H
Bromodichloromethane						--	ND	--	ND	--	ND H	--	ND H
Bromoform						--	ND	--	ND	--	ND H	--	ND H
Bromomethane						--	ND	--	ND	--	ND H	--	ND H
Carbon disulfide						--	ND	--	ND	--	ND H	--	ND H
Carbon tetrachloride	760	1400	2400	22000	44000	--	ND	--	ND	--	ND H	--	ND H
Chlorobenzene	1100	100000	100000	500000	1000000	--	ND	--	ND	--	ND H	--	ND H
Dibromochloromethane						--	ND	--	ND	--	ND H	--	ND H
Chloroethane						--	ND	--	ND *	--	ND H	--	ND H *
Chloroform	370	10000	49000	350000	700000	--	ND	--	ND	--	ND H	--	ND H
Chloromethane						--	ND	--	ND	--	ND H	--	ND H
cis-1,2-Dichloroethene	250	59000	100000	500000	1000000	--	ND	--	ND	--	ND H	--	ND H
cis-1,3-Dichloropropene						--	ND	--	ND	--	ND H	--	ND H
Cyclohexane						--	ND	--	ND	--	ND H	--	ND H
Dichlorodifluoromethane						--	ND	--	ND	--	ND H	--	ND H
Ethylbenzene	1000	30000	41000	390000	780000	--	ND	--	ND	--	ND H	--	ND H
1,2-Dibromoethane						--	ND	--	ND	--	ND H	--	ND H
Isopropylbenzene						--	ND	--	ND	--	ND H	--	ND H
Methyl acetate						--	ND	--	ND	--	ND H	--	ND H
Methyl tert-butyl ether	930	62000	100000	500000	1000000	--	ND	--	ND	--	ND H	--	ND H
Methylcyclohexane						--	ND	--	ND	--	ND H	--	35 H
Methylene Chloride	50	51000	100000	500000	1000000	--	ND	--	ND	--	2.3 JH	--	ND H
Styrene						--	ND	--	ND	--	ND H	--	ND H
Tetrachloroethene	1300	5500	19000	150000	300000	--	ND	--	ND	--	ND H	--	ND H
Toluene	700	100000	100000	500000	1000000	--	ND	--	ND	--	0.34 JH	--	0.67 JH
trans-1,2-Dichloroethene	190	100000	100000	500000	1000000	--	ND	--	ND	--	ND H	--	ND H
trans-1,3-Dichloropropene						--	ND	--	ND	--	ND H	--	ND H
Trichloroethene	470	10000	21000	200000	400000	--	ND	--	ND	--	ND H	--	ND H
Trichlorofluoromethane						--	ND	--	ND	--	ND H	--	ND H
Vinyl chloride	20	210	900	13000	27000	--	ND	--	ND	--	ND H	--	ND H
Xylenes, Total	260	100000	100000	500000	1000000	--	ND	--	ND	--	ND H	--	ND H

Table 1
Zip Zip Mini Mart ERP Site
Surface and Near Surface Soil Data Summary

Location ID	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial Use	Industrial Use	SS-1	SS-1	SS-2	SS-2	SS-3	SS-3	SS-4	SS-4
Sample Depth						0" - 2"	6" - 12"	0" - 2"	6" -12"	0" - 2"	6" - 12"	0" - 2"	6" - 12"
Date Sampled						02/07/2019	02/07/2019	02/07/2019	02/07/2019	2/8/2019	2/8/2019	2/8/2019	2/8/2019
Sample Matrix						Surface Soil	Near Surface Soil	Surface Soil	Near Surface Soil	Surface Soil	Near Surface Soil	Surface Soil	Near Surface Soil
SVOCs													
Biphenyl						ND	ND	ND	ND	ND	ND	ND	ND
bis (2-chloroisopropyl) ether						ND	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol						ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol						ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol						ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol						ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol						ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene						ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene						ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene						ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol						ND	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol	330	100000	100000	500000	1000000	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene						ND	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline						ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol						ND	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine						ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline						ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol						ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether						ND	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol						ND	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline						ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether						ND	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	330	34000	100000	500000	1000000	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitroaniline						ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol						ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	20000	100000	100000	500000	1000000	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthylene	100000	100000	100000	500000	1000000	ND	ND	ND	ND	ND	ND	ND	ND
Acetophenone						ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	100000	100000	100000	500000	1000000	ND	ND	ND	ND	ND	ND	ND	5500 J
Atrazine						ND	ND	ND	ND	ND	ND	ND	ND
Benzaldehyde						ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	1000	1000	1000	5600	11000	ND	ND	ND	220 J	ND	ND	ND	8200 J
Benzo[a]pyrene	1000	1000	1000	1000	1100	ND	ND	ND	ND	ND	ND	ND	7000 J
Benzo[b]fluoranthene	1000	1000	1000	5600	11000	ND	ND	ND	ND	ND	ND	ND	8200 J
Benzo[g,h,i]perylene	100000	100000	100000	500000	1000000	ND	ND	ND	ND	ND	ND	ND	3900 J
Benzo[k]fluoranthene	800	1000	3900	56000	110000	ND	ND	ND	ND	ND	ND	ND	3300 J
Bis(2-chloroethoxy)methane						ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether						ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate						ND	ND	ND	ND	ND	ND	ND	ND
Butyl benzyl phthalate						ND	ND	ND	ND	ND	ND	ND	ND
Caprolactam						ND	ND	ND	ND	ND	ND	ND	ND
Carbazole						ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	1000	1000	3900	56000	110000	ND	ND	ND	ND	ND	ND	ND	5300 J
Dibenz(a,h)anthracene	330	330	330	560	1100	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate						ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate						ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	7000	14000	59000	350000	1000000	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate						ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate						ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100000	100000	100000	500000	1000000	ND	ND	200 J	380 J	ND	ND	ND	20000
Fluorene	30000	100000	100000	500000	1000000	ND	ND	ND	ND	ND	ND	ND	2800 J
Hexachlorobenzene	330	330	1200	6000	12000	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene						ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene						ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane						ND	ND	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	500	500	500	5600	11000	ND	ND	ND	ND	ND	ND	ND	3700 J
Isophorone						ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine						ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine						ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	12000	100000	100000	500000	1000000	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene						ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	800	2400	6700	6700	55000	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100000	100000	100000	500000	1000000	ND	ND	ND	ND	ND	ND	ND	19000
Phenol	330	100000	100000	500000	1000000	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	100000	100000	100000	500000	1000000	ND	ND	ND	310 J	ND	ND	ND	15000 J

Table 1
Zip Zip Mini Mart ERP Site
Surface and Near Surface Soil Data Summary

Location ID	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial Use	Industrial Use	SS-1	SS-1	SS-2	SS-2	SS-3	SS-3	SS-4	SS-4	
Sample Depth						0" - 2"	6" - 12"	0" - 2"	6" - 12"	0" - 2"	6" - 12"	0" - 2"	6" - 12"	
Date Sampled						02/07/2019	02/07/2019	02/07/2019	02/07/2019	2/8/2019	2/8/2019	2/8/2019	2/8/2019	
Sample Matrix														
	Surface Soil	Near Surface Soil	Surface Soil	Near Surface Soil	Surface Soil	Near Surface Soil	Surface Soil	Near Surface Soil	Surface Soil	Near Surface Soil	Surface Soil	Near Surface Soil	Surface Soil	Near Surface Soil
Pesticidies														
4,4'-DDD	3.3	2600	13000	92000	180000	--	ND	--	ND	--	ND	--	ND	
4,4'-DDE	3.3	1800	8900	62000	120000	--	ND	--	ND	--	ND	--	ND	
4,4'-DDT	3.3	1700	7900	47000	94000	--	ND	--	ND	--	ND	--	9.4 J	
Aldrin	5	19	97	680	1400	--	ND	--	ND	--	ND	--	ND	
alpha-BHC	20	97	480	3400	6800	--	ND	--	ND	--	ND	--	ND	
cis-Chlordane	94	910	4200	24000	47000	--	ND	--	ND	--	ND	--	ND	
beta-BHC	36	72	360	3000	14000	--	ND	--	ND	--	ND	--	ND	
delta-BHC	40	100000	100000	500000	1000000	--	ND	--	ND	--	ND	--	ND	
Dieldrin	5	39	200	1400	2800	--	ND	--	ND	--	ND	--	ND	
Endosulfan I	2400	4800	24000	200000	920000	--	ND	--	ND	--	ND	--	ND	
Endosulfan II	2400	4800	24000	200000	920000	--	ND	--	ND	--	ND	--	ND	
Endosulfan sulfate	2400	4800	24000	200000	920000	--	ND	--	ND	--	ND	--	ND	
Endrin	14	2200	11000	89000	410000	--	ND	--	ND	--	ND	--	ND	
Endrin aldehyde						--	ND	--	ND	--	ND	--	ND	
Endrin ketone						--	ND	--	ND	--	ND	--	ND	
gamma-BHC (Lindane)	100	280	1300	9200	23000	--	ND	--	ND	--	ND	--	ND	
trans-Chlordane						--	ND	--	ND	--	ND	--	ND	
Heptachlor	42	420	2100	15000	29000	--	ND	--	ND	--	ND	--	ND	
Heptachlor epoxide						--	ND	--	ND	--	ND	--	ND	
Methoxychlor						--	ND	--	ND	--	ND	--	ND	
Toxaphene						--	ND	--	ND	--	ND	--	ND	
PCBs														
PCB-1016	0.1	1	1	1	25	--	ND	--	ND	--	ND	--	ND	
PCB-1221	0.1	1	1	1	25	--	ND	--	ND	--	ND	--	ND	
PCB-1232	0.1	1	1	1	25	--	ND	--	ND	--	ND	--	ND	
PCB-1242	0.1	1	1	1	25	--	ND	--	ND	--	ND	--	ND	
PCB-1248	0.1	1	1	1	25	--	ND	--	ND	--	ND	--	ND	
PCB-1254	0.1	1	1	1	25	--	ND	--	ND	--	ND	--	ND	
PCB-1260	0.1	1	1	1	25	--	ND	--	ND	--	ND	--	ND	
Herbicides														
2,4,5-T						--	ND	--	ND	--	ND	--	ND	
2,4-D						--	ND	--	ND	--	ND	--	ND	
Silvex (2,4,5-TP)	3800	58000	100000	500000	1000000	--	ND	--	ND	--	ND	--	ND	
Metals														
Aluminum						4150	10900	3650	2770	2260	3510	1940	6040	
Mercury	0.18	0.81	0.81	2.8	5.7	0.050	0.079	0.020	0.020 J	0.041	0.12	0.014 J	0.14	
Antimony						0.50 J	0.69 J	ND	0.48 J	ND	ND	0.64 J	1.1 J	
Arsenic	13	16	16	16	16	3.1	6.0	1.4 J	1.3 J	1.3 J	3.5	1.9 J	4.6	
Barium	350	350	400	400	10000	47.2	74.3	68.0	41.4	21.4	45.3	15.6	117	
Beryllium	7.2	14	72	590	2700	0.24	0.43	0.18 J	0.16 J	0.12 J	0.18 J	0.14 J	0.37	
Cadmium	2.5	2.5	4.3	9.3	60	0.76	0.55	0.16 J	0.14 J	0.15 J	0.19 J	0.11 J	0.32	
Calcium						150000 B	79800 B	145000 B	253000 B	165000 B	203000 B	193000 B	61600 B	
Chromium						13.4	18.1	10	6.5	8.3	8.6	6.3	11.4	
Cobalt						4.8	7.5	2.3	2.0	2.1	3.4	3.0	5.4	
Copper	50	270	270	270	10000	19.8	28.7	6.1	4.3 J	9.2	12.0	8.9	25.4	
Iron						7840	17000	5290	4740	4400	6870	4060	18200	
Lead	63	400	400	1000	3900	93.3	77.0	10.8	13.0	18.7	22.8	14.1	854	
Magnesium						26400 B	41000 B	44700 B	22200 B	17300 B	24500 B	8110 B	16500 B	
Manganese	1600	2000	2000	10000	10000	252 B	275 B	135 B	175 B	118 B	206 B	160 B	264 B	
Nickel	30	140	310	310	10000	13.7	24.6	7.0	6.4	8.9	9.5	7.3	16.5	
Potassium						1620	3570	1430	1420	885	1360	1010	1760	
Selenium	3.9	36	180	1500	6800	0.78 J	0.50 J	ND	ND	ND	ND	ND	ND	
Silver	2	36	180	1500	6800	ND	ND	ND	ND	ND	ND	ND	ND	
Sodium						223 B	721 B	286 B	249 B	260 B	238 B	374 B	640 B	
Thallium						ND	ND	ND	ND	ND	ND	ND	ND	
Vanadium						20.0	22.1	14.5	8.0	31.3	13.7	10.5	19.6	
Zinc	109	2200	10000	10000	10000	569	107	20.2	22.7	24.0	24.7	22.0	243	

Notes:
VOC, SVOC, Pesticide, and Herbicide results and associated soil cleanup objectives (SCO) in parts per billion
PCB and Metal results and associated soil cleanup objectives (SCO) in parts per million
Analytical data compared to NYSDEC Part 375-6
Highlighted color indicates the respective use SCO(s) exceeded. Use type SCOs are listed from left to right from most restrictive to least restrictive.
ND indicates analyte was not detected.
Blank space indicates that a SCO does not exist
"--" indicates that sample was not analyzed for that parameter
* - LCS or LCSD is outside acceptance limits.
B - Compound was found in the blank and sample.
H - Sample was prepped or analyzed beyond the specified holding time
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Table 2
Zip Zip Mini Mart ERP Site
Subsurface Soil Data Summary

Location ID	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial Use	Industrial Use	SB - 1 3'-5' 01/15/2019 Subsurface Soil ug/kg	SB - 1 5'-10' 01/15/2019 Subsurface Soil ug/kg	SB - 2 0' - 5' 01/16/2019 Subsurface Soil ug/kg	SB - 2 5' -10' 01/16/2019 Subsurface Soil ug/kg	SB - 2 10' -15' 01/16/2019 Subsurface Soil ug/kg	SB - 3 0' - 5' 01/16/2019 Subsurface Soil ug/kg	SB -3 10' - 15' 01/16/2019 Subsurface Soil ug/kg	SB - 3 15' - 20' 01/16/2019 Subsurface Soil ug/kg	SB - 4 0' - 5' 01/16/2019 Subsurface Soil ug/kg	SB -4 5' - 10' 01/16/2019 Subsurface Soil ug/kg	SB - 4 10' - 15' 01/16/2019 Subsurface Soil ug/kg	SB - 5 5' - 10' 01/16/2019 Subsurface Soil ug/kg	SB - 5 10' - 15' 01/16/2019 Subsurface Soil ug/kg	SB - 6 5' - 10' 01/16/2019 Subsurface Soil ug/kg	SB - 6 10' - 15' 01/16/2019 Subsurface Soil ug/kg			
VOCs																							
1,1,1-Trichloroethane	680	100000	100000	500000	1000000	ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND			
1,1,2,2-Tetrachloroethane						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	FI		
1,1,2-Trichloroethane						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	FI		
1,1,2-Trichloro-1,2,2-trifluoroethane						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND		
1,1-Dichloroethane	270	19000	26000	240000	480000	ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND		
1,1-Dichloroethene	330	100000	100000	500000	1000000	ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND		
1,2,4-Trichlorobenzene						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
1,2-Dibromo-3-Chloropropane						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
1,2-Dichlorobenzene	1100	100000	100000	500000	1000000	1.7	J	ND	--	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
1,2-Dichloroethane	20	2300	3100	30000	60000	ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	0.75	J	ND	FI
1,2-Dichloropropane						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	
1,3-Dichlorobenzene	2400	17000	49000	280000	560000	ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
1,4-Dichlorobenzene	1800	9800	13000	130000	250000	2.1	J	ND	--	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
2-Butanone (MEK)	120	100000	100000	500000	1000000	18	J	ND	--	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
2-Hexanone						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
4-Methyl-2-pentanone (MIBK)						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
Acetone	50	100000	100000	500000	1000000	86	J	52	--	60	J	10	J	ND	--	14	J	13	J	15	J	110	25
Benzene	60	2900	4800	44000	89000	ND	ND	--	ND	ND	--	1100	1000	10	--	37	J	ND	ND	ND	ND	FI	
Bromodichloromethane						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
Bromoform						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
Bromomethane						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	
Carbon disulfide						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	
Carbon tetrachloride	760	1400	2400	22000	44000	ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	
Chlorobenzene	1100	100000	100000	500000	1000000	5.7	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
Dibromochloromethane						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
Chloroethane						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	
Chloroform	370	10000	49000	350000	700000	ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	0.31	J	ND	ND	ND	ND	
Chloromethane						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	
cis-1,2-Dichloroethene	250	59000	100000	500000	1000000	ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
cis-1,3-Dichloropropene						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
Cyclohexane						ND	ND	--	ND	ND	--	110	410	ND	--	340	ND	ND	ND	ND	ND	FI	
Dichlorodifluoromethane						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	
Ethylbenzene	1000	30000	41000	390000	780000	ND	ND	--	ND	ND	--	750	3600	ND	--	18	J	ND	ND	ND	ND	FI	
1,2-Dibromoethane						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
Isopropylbenzene						ND	ND	--	ND	ND	--	18	J	160	J	ND	--	120	ND	ND	ND	ND	FI
Methyl acetate						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	
Methyl tert-butyl ether	930	62000	100000	500000	1000000	ND	ND	--	ND	ND	--	ND	ND	54	--	ND	5.3	ND	2.0	J	5.2	ND	
Methylcyclohexane						ND	ND	--	ND	ND	--	27	J	120	J	ND	--	260	ND	ND	ND	ND	FI
Methylene Chloride	50	51000	100000	500000	1000000	4.2	J	ND	--	ND	--	ND	68	J	ND	--	32	J	ND	ND	ND	ND	
Styrene						ND	ND	--	ND	ND	--	34	J	ND	--	ND	ND	ND	ND	ND	ND	ND	
Tetrachloroethene	1300	5500	19000	150000	300000	ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
Toluene	700	100000	100000	500000	1000000	0.82	JB	0.65	JB	--	--	580	260	ND	--	ND	ND	ND	ND	ND	ND	FI	
trans-1,2-Dichloroethene	190	100000	100000	500000	1000000	ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
trans-1,3-Dichloropropene						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
Trichloroethene	470	10000	21000	200000	400000	ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	FI	
Trichlorofluoromethane						ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	
Vinyl chloride	20	210	900	13000	27000	ND	ND	--	ND	ND	--	ND	ND	ND	--	ND	ND	ND	ND	ND	ND	ND	
Xylenes, Total	260	100000	100000	500000	1000000	ND	ND	--	ND	ND	--	3900	20000	ND	--	43	J	ND	ND	ND	ND	FI	

Table 2
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Subsurface Soil Data Summary

Location ID	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial Use	Industrial Use	SB - 1 3'-5' 01/15/2019 Subsurface Soil ug/kg	SB - 1 5'-10' 01/15/2019 Subsurface Soil ug/kg	SB - 2 0' - 5' 01/16/2019 Subsurface Soil ug/kg	SB - 2 5' -10' 01/16/2019 Subsurface Soil ug/kg	SB - 2 10' -15' 01/16/2019 Subsurface Soil ug/kg	SB - 3 0' - 5' 01/16/2019 Subsurface Soil ug/kg	SB - 3 10' - 15' 01/16/2019 Subsurface Soil ug/kg	SB - 3 15' - 20' 01/16/2019 Subsurface Soil ug/kg	SB - 4 0' - 5' 01/16/2019 Subsurface Soil ug/kg	SB - 4 5' - 10' 01/16/2019 Subsurface Soil ug/kg	SB - 4 10' - 15' 01/16/2019 Subsurface Soil ug/kg	SB - 5 5' - 10' 01/16/2019 Subsurface Soil ug/kg	SB - 5 10' - 15' 01/16/2019 Subsurface Soil ug/kg	SB - 6 5' - 10' 01/16/2019 Subsurface Soil ug/kg	SB - 6 10' - 15' 01/16/2019 Subsurface Soil ug/kg
SVOCs																				
Biphenyl						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
bis (2-chloroisopropyl) ether						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
2,4,5-Trichlorophenol						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
2,4,6-Trichlorophenol						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
2,4-Dichlorophenol						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
2,4-Dimethylphenol						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
2,4-Dinitrophenol						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
2,4-Dinitrotoluene						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
2,6-Dinitrotoluene						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
2-Chloronaphthalene						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
2-Chlorophenol						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
2-Methylphenol	330	100000	100000	500000	1000000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
2-Methylnaphthalene						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
2-Nitroaniline						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
2-Nitrophenol						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
3,3'-Dichlorobenzidine						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
3-Nitroaniline						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
4,6-Dinitro-2-methylphenol						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
4-Bromophenyl phenyl ether						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
4-Chloro-3-methylphenol						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
4-Chloroaniline						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
4-Chlorophenyl phenyl ether						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
4-Methylphenol	330	34000	100000	500000	1000000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
4-Nitroaniline						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
4-Nitrophenol						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Acenaphthene	20000	100000	100000	500000	1000000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Acenaphthylene	100000	100000	100000	500000	1000000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Acetophenone						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Anthracene	100000	100000	100000	500000	1000000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Atrazine						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Benzaldehyde						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Benzo[a]anthracene	1000	1000	1000	5600	11000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Benzo[a]pyrene	1000	1000	1000	1000	1100	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Benzo[b]fluoranthene	1000	1000	1000	5600	11000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Benzo[g,h,i]perylene	100000	100000	100000	500000	1000000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Benzo[k]fluoranthene	800	1000	3900	56000	110000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Bis(2-chloroethoxy)methane						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Bis(2-chloroethyl)ether						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Bis(2-ethylhexyl) phthalate						--	ND	ND	--	--	90 J	--	--	--	ND	--	ND	--	ND	--
Butyl benzyl phthalate						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Caprolactam						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Carbazole						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Chrysene	1000	1000	3900	56000	110000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Dibenz(a,h)anthracene	330	330	330	560	1100	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Di-n-butyl phthalate						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Di-n-octyl phthalate						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Dibenzofuran	7000	14000	59000	350000	1000000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Diethyl phthalate						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Dimethyl phthalate						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Fluoranthene	100000	100000	100000	500000	1000000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Fluorene	30000	100000	100000	500000	1000000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Hexachlorobenzene	330	330	1200	6000	12000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Hexachlorobutadiene						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Hexachlorocyclopentadiene						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Hexachloroethane						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Indeno[1,2,3-cd]pyrene	500	500	500	5600	11000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Isophorone						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
N-Nitrosodi-n-propylamine						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
N-Nitrosodiphenylamine						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Naphthalene	12000	100000	100000	500000	1000000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Nitrobenzene						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Pentachlorophenol	800	2400	6700	6700	55000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Phenanthrene	100000	100000	100000	500000	1000000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Phenol	330	100000	100000	500000	1000000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--
Pyrene	100000	100000	100000	500000	1000000	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--

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Location ID	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial Use	Industrial Use	SB - 1 3'-5'	SB - 1 5'-10'	SB - 2 0' - 5'	SB - 2 5' -10'	SB - 2 10' -15'	SB - 3 0' - 5'	SB - 3 10' - 15'	SB - 3 15' - 20'	SB - 4 0' - 5'	SB - 4 5' - 10'	SB - 4 10' - 15'	SB - 5 5' - 10'	SB - 5 10' - 15'	SB - 6 5' - 10'	SB - 6 10' - 15'	
Sample Depth																					
Date Sampled						01/15/2019	01/15/2019	01/16/2019	01/16/2019	01/16/2019	01/16/2019	01/16/2019	01/16/2019	01/16/2019	01/16/2019	01/16/2019	01/16/2019	01/16/2019	01/16/2019	01/16/2019	01/16/2019
Sample Matrix						Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil	Subsurface Soil
Units						ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
Pesticidies																					
4,4'-DDD	3.3	2600	13000	92000	180000	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
4,4'-DDE	3.3	1800	8900	62000	120000	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
4,4'-DDT	3.3	1700	7900	47000	94000	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Aldrin	5	19	97	680	1400	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
alpha-BHC	20	97	480	3400	6800	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
cis-Chlordane	94	910	4200	24000	47000	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
beta-BHC	36	72	360	3000	14000	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
delta-BHC	40	100000	100000	500000	1000000	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Dieldrin	5	39	200	1400	2800	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Endosulfan I	2400	4800	24000	200000	920000	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Endosulfan II	2400	4800	24000	200000	920000	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Endosulfan sulfate	2400	4800	24000	200000	920000	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Endrin	14	2200	11000	89000	410000	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Endrin aldehyde						--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Endrin ketone						--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
gamma-BHC (Lindane)	100	280	1300	9200	23000	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
trans-Chlordane						--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Heptachlor	42	420	2100	15000	29000	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Heptachlor epoxide						--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Methoxychlor						--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Toxaphene						--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Herbicidies																					
2,4,5-T						--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
2,4-D						--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Silvex (2,4,5-TP)	3800	58000	100000	500000	1000000	--	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	
Metals																					
Aluminum						--	14400 B	11600 B	--	--	11000 B	--	--	--	10500 B	--	10300 B	--	11300 B	--	
Mercury	0.18	0.81	0.81	2.8	5.7	--	0.021 J	0.19	--	--	0.032	--	--	--	0.015 J	--	0.016 J	--	0.020 J	--	
Antimony						--	ND	0.53 J	--	--	0.55 J	--	--	--	ND	--	ND	--	ND	--	
Arsenic	13	16	16	16	16	--	2.9	6.4	--	--	3.3	--	--	--	3.1	--	4.4	--	2.5	--	
Barium	350	350	400	400	10000	--	71.4	95.2	--	--	85.4	--	--	--	114	--	98.9	--	91.8	--	
Beryllium	7.2	14	72	590	2700	--	0.54	0.46	--	--	0.44	--	--	--	0.40	--	0.40	--	0.43	--	
Cadmium	2.5	2.5	4.3	9.3	60	--	0.17 J	0.15 J	--	--	0.17 J	--	--	--	0.16 J	--	0.12 J	--	0.13 J	--	
Calcium						--	111000 B	76100 B	--	--	66900 B	--	--	--	85100 B	--	87900 B	--	90600 B	--	
Chromium						--	21.1	19.2	--	--	17.3	--	--	--	20.3	--	16.0	--	20.2	--	
Cobalt						--	8.7	8.4	--	--	7.5	--	--	--	8.6	--	5.3	--	6.8	--	
Copper	50	270	270	270	10000	--	25.2	19.0	--	--	18.8	--	--	--	25.8	--	15.2	--	11.5	--	
Iron						--	15500	14700	--	--	13600	--	--	--	12100	--	12300	--	12100	--	
Lead	63	400	400	1000	3900	--	7.5	15.2	--	--	10.0	--	--	--	19.3	--	4.6	--	5.2	--	
Magnesium						--	62900 B	43600 B	--	--	36300 B	--	--	--	60900 B	--	49200 B	--	61100 B	--	
Manganese	1600	2000	2000	10000	10000	--	350	313	--	--	303	--	--	--	279	--	279	--	265	--	
Nickel	30	140	310	310	10000	--	33.8 B	33.3 B	--	--	26.7 B	--	--	--	43.2 B	--	25.2 B	--	29.1 B	--	
Potassium						--	6070 B	4600 B	--	--	4090 B	--	--	--	4200 B	--	4240 B	--	4690 B	--	
Selenium	3.9	36	180	1500	6800	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--	
Silver	2	36	180	1500	6800	--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--	
Sodium						--	296 B	236 B	--	--	318 B	--	--	--	227 B	--	211 B	--	413 B	--	
Thallium						--	ND	ND	--	--	ND	--	--	--	ND	--	ND	--	ND	--	
Vanadium						--	24.1	20.8	--	--	20.1	--	--	--	19.5	--	17.4	--	20.5	--	
Zinc	109	2200	10000	10000	10000	--	30.8	30.1	--	--	26.1	--	--	--	53.3	--	24.8	--	25.7	--	

Notes:
VOC, SVOC, Pesticide, and Herbicide results and associated soil cleanup objectives (SCO) in parts per billion
PCB and Metal results and associated soil cleanup objectives (SCO) in parts per million
Results and soil cleanup objectives (SCO) in parts per billion
Analytical data compared to NYSDEC Part 375-6
Highlighted color indicates the respective use SCO(s) exceeded. Use type SCOs are listed from left to right from most restrictive to least restrictive.
ND indicates analyte was not detected.
Blank space indicates that a SCO does not exist
"--" indicates that sample was not analyzed for that parameter
B - Compound was found in the blank and sample.
F1 - MS and/or MSD Recovery is outside acceptance limits.
J - Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Table 3
Zip Zip Mini Mart ERP Site
Groundwater Data Summary

Location ID	TOGS 1.1.1 Standard	TW-1	MW-2	DUPE	TW-2	TW-3	MW-4	TRIP BLANK
Date Sampled		01/18/2019	01/18/2019	01/18/2019	01/18/2019	01/18/2019	01/18/2019	01/18/2019
Sample Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
VOCs								
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND F1	ND
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	ND	ND	ND	ND	ND F1	ND
1,1-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND F1	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND F1	ND
1,2-Dibromo-3-Chloropropane	0.04	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	50	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)		ND	ND	ND	ND	ND	ND	ND
Acetone	50	ND	ND	6.2 J	3.2 J	3.5 J	5.9 J	ND
Benzene	1	120	ND	ND	ND	ND	0.63 J	ND
Bromodichloromethane	50	ND	ND	ND	ND	ND	ND	ND
Bromoform	50	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	60	ND	ND	ND	ND	ND	ND F2	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND F2 F1	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	50	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ND	ND	ND	ND	ND	ND	ND
Chloromethane		ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.4	ND	ND	ND	ND	ND	ND	ND
Cyclohexane		68	ND	ND	ND	0.72 J	1.0 F2F1	ND
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	83	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	0.0006	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	6.4 J	ND	ND	ND	ND	ND F1	ND
Methyl acetate		ND	ND	ND	ND	ND	ND	ND
Methyl tert-butyl ether	10	4.3 J	73	71	14	0.70 J	35	ND
Methylcyclohexane		ND	ND	ND	ND	ND	0.19 JF1F2	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND	ND
Styrene	930	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	ND	ND	ND	ND	ND	ND
Toluene	5	48	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.4	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	ND	ND	ND	ND F1	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND F1	ND
Vinyl chloride	2	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	5	440	ND	ND	ND	ND	ND	ND

Table 3
Zip Zip Mini Mart ERP Site
Groundwater Data Summary

Location ID	TOGS 1.1.1 Standard	TW-1	MW-2	DUPE	TW-2	TW-3	MW-4	TRIP BLANK
Date Sampled		01/18/2019	01/18/2019	01/18/2019	01/18/2019	01/18/2019	01/18/2019	01/18/2019
Sample Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
SVOCs								
Biphenyl		ND	ND	ND	ND	ND	ND	--
bis (2-chloroisopropyl) ether	5	ND	ND	ND	ND	ND	ND	--
2,4,5-Trichlorophenol		ND	ND	ND	ND	ND	ND	--
2,4,6-Trichlorophenol		ND	ND	ND	ND	ND	ND	--
2,4-Dichlorophenol	2	ND	ND	ND	ND	ND	ND	--
2,4-Dimethylphenol	2	6.4	ND	ND	ND	ND	ND	--
2,4-Dinitrophenol	2	ND	ND	ND	ND	ND	ND	--
2,4-Dinitrotoluene	5	ND	ND	ND	ND	ND	ND	--
2,6-Dinitrotoluene	5	ND	ND	ND	ND	ND	ND	--
2-Chloronaphthalene	10	ND	ND	ND	ND	ND	ND	--
2-Chlorophenol		ND	ND	ND	ND	ND	ND	--
2-Methylphenol		0.97 J	ND	ND	ND	ND	ND	--
2-Methylnaphthalene		4.4 J	ND	ND	ND	ND	ND	--
2-Nitroaniline	5	ND	ND	ND	ND	ND	ND	--
2-Nitrophenol		ND	ND	ND	ND	ND	ND	--
3,3'-Dichlorobenzidine	5	ND	ND	ND	ND	ND	ND F1 F2	--
3-Nitroaniline	5	ND	ND	ND	ND	ND	ND F1	--
4,6-Dinitro-2-methylphenol		ND	ND	ND	ND	ND	ND	--
4-Bromophenyl phenyl ether		ND	ND	ND	ND	ND	ND	--
4-Chloro-3-methylphenol		ND	ND	ND	ND	ND	ND	--
4-Chloroaniline	5	ND	ND	ND	ND	ND	ND	--
4-Chlorophenyl phenyl ether		ND	ND	ND	ND	ND	ND	--
4-Methylphenol		1.3 J	ND	ND	ND	ND	ND	--
4-Nitroaniline	5	ND	ND	ND	ND	ND	ND F1	--
4-Nitrophenol		ND	ND	ND	ND	ND	ND	--
Acenaphthene	20	ND	ND	ND	ND	ND	ND	--
Acenaphthylene		ND	ND	ND	ND	ND	ND	--
Acetophenone		ND	ND	ND	ND	ND	ND	--
Anthracene	50	ND	ND	ND	ND	ND	ND	--
Atrazine	7.5	ND	ND	ND	ND	ND	ND	--
Benzaldehyde		ND	ND	ND	ND	ND	ND	--
Benzo[a]anthracene	0.002	ND	ND	ND	ND	ND	ND	--
Benzo[a]pyrene	0	ND	ND	ND	ND	ND	ND	--
Benzo[b]fluoranthene	0.002	ND	ND	ND	ND	ND	ND	--
Benzo[g,h,i]perylene		ND	ND	ND	ND	ND	ND	--
Benzo[k]fluoranthene	0.002	ND	ND	ND	ND	ND	ND	--
Bis(2-chloroethoxy)methane	5	ND	ND	ND	ND	ND	ND	--
Bis(2-chloroethyl)ether	1	ND	ND	ND	ND	ND	ND	--
Bis(2-ethylhexyl) phthalate	5	ND	ND	ND	ND	ND	ND	--
Butyl benzyl phthalate	50	ND	ND	ND	ND	ND	ND	--
Caprolactam		ND	ND	ND	ND	ND	ND	--
Carbazole		ND	ND	ND	ND	ND	ND	--
Chrysene	0.002	ND	ND	ND	ND	ND	ND	--
Dibenz(a,h)anthracene		ND	ND	ND	ND	ND	ND	--
Di-n-butyl phthalate	50	ND	ND	ND	ND	ND	ND	--
Di-n-octyl phthalate	50	ND	ND	ND	ND	ND	ND	--
Dibenzofuran		ND	ND	ND	ND	ND	ND	--
Diethyl phthalate	50	ND	ND	ND	ND	ND	ND	--
Dimethyl phthalate	50	ND	ND	ND	ND	ND	ND	--
Fluoranthene	50	ND	ND	ND	ND	ND	ND	--
Fluorene	50	ND	ND	ND	ND	ND	ND	--
Hexachlorobenzene	0.04	ND	ND	ND	ND	ND	ND	--
Hexachlorobutadiene	0.5	ND	ND	ND	ND	ND	ND	--
Hexachlorocyclopentadiene	5	ND	ND	ND	ND	ND	ND	--
Hexachloroethane	5	ND	ND	ND	ND	ND	ND	--
Indeno[1,2,3-cd]pyrene	0.002	ND	ND	ND	ND	ND	ND	--
Isophorone	50	ND	ND	ND	ND	ND	ND	--
N-Nitrosodi-n-propylamine		ND	ND	ND	ND	ND	ND	--
N-Nitrosodiphenylamine		ND	ND	ND	ND	ND	ND	--
Naphthalene	10	17	ND	ND	ND	ND	ND	--
Nitrobenzene	0.4	ND	ND	ND	ND	ND	ND	--
Pentachlorophenol	1	ND	ND	ND	ND	ND	ND	--
Phenanthrene	50	ND	ND	ND	ND	ND	ND	--
Phenol	1	3.2 J	ND	ND	ND	ND	ND	--
Pyrene	50	ND	ND	ND	ND	ND	ND	--

Table 3
Zip Zip Mini Mart ERP Site
Groundwater Data Summary

Location ID	TOGS 1.1.1 Standard	TW-1	MW-2	DUPE	TW-2	TW-3	MW-4	TRIP BLANK
Date Sampled		01/18/2019	01/18/2019	01/18/2019	01/18/2019	01/18/2019	01/18/2019	01/18/2019
Sample Matrix		Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
Metals								
Aluminum		193	65.2	61.5	223	70.0	13.9 F2F1	--
Aluminum, Dissolved		ND	ND		ND	ND	ND	--
Mercury	0.7	0.00098	0.00015 J	0.00017 J	0.00078	0.00032	ND	--
Mercury, Dissolved	0.7	ND	ND		ND	ND	ND	--
Antimony	3	0.0070 J	ND	ND	0.0095 J	ND	ND	--
Antimony, Dissolved	3	ND	ND		ND	ND	ND	--
Arsenic	25	0.064	0.014 J	0.015	0.071	0.038	ND	--
Arsenic, Dissolved	25	ND	ND ^		ND ^	ND ^	ND	--
Barium	1000	3.9	3.6	3.6	2.8	1.8	3.4	--
Barium, Dissolved	1000	1.2	0.97		0.84	0.59	2.9	--
Beryllium	3	0.0072	0.0024	0.0022	0.0084	0.0038	0.00049 J	--
Beryllium, Dissolved	3	ND	ND		ND	ND	ND	--
Cadmium	5	0.0023	0.0011 J	0.00098 J	0.0026	0.0041	ND	--
Cadmium, Dissolved	5	ND	ND		ND	ND	ND	--
Calcium		1660	604	616	2280	758	290 F2	--
Calcium, Dissolved		152	205		174	371	182	--
Chromium	50	0.32	0.20	0.19	0.37	0.14	0.036 F2	--
Chromium, Dissolved	50	ND	ND		ND	ND	ND	--
Cobalt		0.13	0.044	0.042	0.16	0.054	0.0060	--
Cobalt, Dissolved		ND	0.0034 J		0.0032 J	0.0013 J	ND	--
Copper	200	0.28	0.080	0.073	0.38	0.38	0.019	--
Copper, Dissolved	200	ND	ND		ND	ND	ND	--
Iron	500	222 B	72.1 B	69.8 B	265 B	108 B	15.9 F2F1B	--
Iron, Dissolved	500	ND	ND		ND	ND	ND	--
Lead	25	0.18	0.054	0.048	0.18	0.22	0.017	--
Lead, Dissolved	25	0.0048 J	0.0035 J		0.0030 J	ND	ND	--
Magnesium	35000	820	331	334	1240	224	164 F2	--
Magnesium, Dissolved	35000	53.1	105		92.6	82.5	108	--
Manganese	300	5.0	1.8	1.8	5.7	1.5	0.41 F2F1	--
Manganese, Dissolved	300	0.046	0.25		0.15	0.26	0.058	--
Nickel	100	0.60	0.19	0.19	0.73	0.25	0.030	--
Nickel, Dissolved	100	0.013	0.022		0.020	0.0068 J	0.0060 J	--
Potassium		86.3	32.9	30.9	90.2	38.3	13.7 F2F1	--
Potassium, Dissolved		12.3	9.1		8.3	9.2	7.9	--
Selenium	10	ND	ND	ND	ND	ND	ND	--
Selenium, Dissolved	10	ND	ND		ND	ND	ND	--
Silver	50	ND	ND	ND	ND	ND	ND	--
Silver, Dissolved	50	ND	ND		ND	ND	ND	--
Sodium		595	371	371	190	1010	292	--
Sodium, Dissolved		684	386		224	1040	288	--
Thallium	50	ND	ND	ND	ND	ND	ND	--
Thallium, Dissolved	50	ND	ND		ND	ND	ND	--
Vanadium		0.31	0.12	0.11	0.35	0.22	0.026	--
Vanadium, Dissolved		ND	ND		ND	ND	ND	--
Zinc	2000	0.46	0.15	0.14	0.56	0.67	0.032	--
Zinc, Dissolved	2000	0.0043 JB	0.0065 JB		0.0028 JB	0.020 B	ND	--

Notes:

Analytical results compared to NYSDEC Division of Water Technical and Operational Guidance Series (1.1.1) Ambient Water Quality Standards and Guidance Values.

Highlighted cell indicates the respective TOGs Ambient Groundwater Limitation exceeded.

Blank space indicates groundwater limitation does not exist

Metals concentrations and standards in ppm, all other analytes and standards in ppb.

ND indicates analyte was not detected.

"- "- indicates analysis not performed.

- DUPE (duplicate) collected from MW-2.

B - Compound was found in the blank and sample.

F1 - MS and/or MSD Recovery is outside acceptance limits.

F2 - MS/MSD RPD exceeds control limits

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-148884-1

Client Project/Site: Former Zip Zip Mini Mart Site

For:

C&S Engineers, Inc.

499 Col. Eileen Collins Blvd

Syracuse, New York 13212

Attn: Matt Walker



Authorized for release by:

2/15/2019 4:38:17 PM

Judy Stone, Senior Project Manager

(484)685-0868

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Definitions/Glossary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time
B	Compound was found in the blank and sample.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Job ID: 480-148884-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-148884-1

Receipt

The samples were received on 2/9/2019 4:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.7° C.

GC/MS VOA

Method(s) 8260C: The laboratory control sample (LCS) for preparation batch 480-458613 and analytical batch 480-458609 recovered outside control limits for the following analyte: Chloroethane. Chloroethane has been identified as a poor performing analyte when analyzed using this method; therefore, re-analysis was not performed. The following samples are affected: SS-2 (6 - 1 2) (480-148884-4) and SS-4 (6 - 12) (480-148884-8).

Method(s) 8260C: The following samples were analyzed outside of preparation holding time but within analytical holding time: SS-3 (6 - 12) (480-148884-6) and SS-4 (6 - 12) (480-148884-8).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The following samples required a dilution due to the nature of the sample matrix (color and viscosity): SS-1 (0 - 2) (480-148884-1), SS-3 (0 - 2) (480-148884-5), SS-3 (6 - 12) (480-148884-6), SS-4 (0 - 2) (480-148884-7) and SS-4 (6 - 12) (480-148884-8). Because of this dilution, the surrogate spike concentrations in the samples were reduced to a level where the recovery calculation does not provide useful information. Elevated reporting limits (RLs) are provided.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-458953 recovered outside acceptance criteria, low biased, for pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported. The following samples are impacted: SS-1 (0 - 2) (480-148884-1), SS-1 (6 - 12) (480-148884-2), SS-2 (0 - 2) (480-148884-3), SS-2 (6 - 1 2) (480-148884-4), SS-3 (0 - 2) (480-148884-5), SS-3 (6 - 12) (480-148884-6), SS-4 (0 - 2) (480-148884-7) and SS-4 (6 - 12) (480-148884-8).

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-458953 recovered above the upper control limit for 2-Nitrophenol. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: SS-1 (0 - 2) (480-148884-1), SS-1 (6 - 12) (480-148884-2), SS-2 (0 - 2) (480-148884-3), SS-2 (6 - 1 2) (480-148884-4), SS-3 (0 - 2) (480-148884-5), SS-3 (6 - 12) (480-148884-6), SS-4 (0 - 2) (480-148884-7) and SS-4 (6 - 12) (480-148884-8).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method(s) 8081B: The following samples were diluted due to the nature of the sample matrix: SS-1 (6 - 12) (480-148884-2), SS-2 (6 - 1 2) (480-148884-4), SS-3 (6 - 12) (480-148884-6) and SS-4 (6 - 12) (480-148884-8). As such, surrogate recoveries are below the calibration range, estimated and not representative. Elevated reporting limits (RLs) are provided.

Method(s) 8081B: All primary data for analytical batches 458894 and 459082 are reported from the RTX-CLPII column.

Method(s) 8082A: The continuing calibration verification (CCV 480-459092/7) associated with analytical batch 480-459092 recovered above the upper control limit for PCB-1254. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: SS-1 (6 - 12) (480-148884-2), SS-2 (6 - 1 2) (480-148884-4), SS-3 (6 - 12) (480-148884-6) and SS-4 (6 - 12) (480-148884-8).

Method(s) 8082A: All primary data for analytical batch 459092 are reported from the ZB-35 column.

Method(s) 8082A: The percent difference in a multi-component continuing calibration verification is assessed on the basis of the total amount, individual peak calculations are only listed for completeness.

Case Narrative

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Job ID: 480-148884-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

Method(s) 8151A: The continuing calibration verifications (CCV 480-459243/4) and (CCV 480-459243/31) associated with analytical batch 459243 recovered above the upper control limit for the surrogate 2,4-Dichlorophenylacetic acid. The samples associated with these CCVs were non-detects for all target analytes and the surrogate recoveries were not adversely affected; therefore, the data have been reported. The following samples are impacted: SS-1 (6 - 12) (480-148884-2), SS-2 (6 - 1 2) (480-148884-4), SS-3 (6 - 12) (480-148884-6) and SS-4 (6 - 12) (480-148884-8).

Method(s) 8151A: All primary data for analytical batch 459027 are reported from the RTX-CLPI column, while all primary data for analytical batch 459243 are reported from the RTX-CLPII column.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010C: The following samples were diluted due to the presence of Calcium which interferes with Total Copper: SS-1 (0 - 2) (480-148884-1), SS-2 (0 - 2) (480-148884-3), SS-2 (6 - 1 2) (480-148884-4), SS-3 (0 - 2) (480-148884-5), SS-3 (6 - 12) (480-148884-6) and SS-4 (0 - 2) (480-148884-7). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method(s) 3550C: The following samples required a Florisil clean-up, via 3620C, to reduce matrix interferences: SS-1 (6 - 12) (480-148884-2), SS-2 (6 - 1 2) (480-148884-4), SS-3 (6 - 12) (480-148884-6) and SS-4 (6 - 12) (480-148884-8).

Method(s) 3550C: Due to the matrix, the following samples could not be concentrated to the final method required volume: SS-1 (0 - 2) (480-148884-1), SS-3 (0 - 2) (480-148884-5), SS-3 (6 - 12) (480-148884-6), SS-4 (0 - 2) (480-148884-7) and SS-4 (6 - 12) (480-148884-8). The reporting limits (RLs) are elevated proportionately.

Method(s) 3550C: Elevated reporting limits are provided for the following sample due to insufficient sample provided for preparation: SS-4 (6 - 12) (480-148884-8).

Method(s) 8151A: Sample SS-1 (6 - 12) (480-148884-2) was decanted prior to preparation.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-1 (0 - 2)

Lab Sample ID: 480-148884-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	4150		11.9	5.2	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.50	J	17.9	0.48	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.1		2.4	0.48	mg/Kg	1	☼	6010C	Total/NA
Barium	47.2		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.24		0.24	0.033	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.76		0.24	0.036	mg/Kg	1	☼	6010C	Total/NA
Calcium	150000	B	119	7.9	mg/Kg	2	☼	6010C	Total/NA
Chromium	13.4		0.60	0.24	mg/Kg	1	☼	6010C	Total/NA
Cobalt	4.8		0.60	0.060	mg/Kg	1	☼	6010C	Total/NA
Copper	19.8		2.4	0.50	mg/Kg	2	☼	6010C	Total/NA
Iron	7840		11.9	4.2	mg/Kg	1	☼	6010C	Total/NA
Lead	93.3		1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Magnesium	26400	B	23.8	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	252	B	0.24	0.038	mg/Kg	1	☼	6010C	Total/NA
Nickel	13.7		6.0	0.27	mg/Kg	1	☼	6010C	Total/NA
Potassium	1620		35.8	23.8	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.78	J	4.8	0.48	mg/Kg	1	☼	6010C	Total/NA
Sodium	223	B	167	15.5	mg/Kg	1	☼	6010C	Total/NA
Vanadium	20.0		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Zinc	569		2.4	0.76	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.050		0.023	0.0094	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-1 (6 - 12)

Lab Sample ID: 480-148884-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	15	J	21	3.5	ug/Kg	1	☼	8260C	Total/NA
Aluminum	10900		11.6	5.1	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.69	J	17.5	0.47	mg/Kg	1	☼	6010C	Total/NA
Arsenic	6.0		2.3	0.47	mg/Kg	1	☼	6010C	Total/NA
Barium	74.3		0.58	0.13	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.43		0.23	0.033	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.55		0.23	0.035	mg/Kg	1	☼	6010C	Total/NA
Calcium	79800	B	58.2	3.8	mg/Kg	1	☼	6010C	Total/NA
Chromium	18.1		0.58	0.23	mg/Kg	1	☼	6010C	Total/NA
Cobalt	7.5		0.58	0.058	mg/Kg	1	☼	6010C	Total/NA
Copper	28.7		1.2	0.24	mg/Kg	1	☼	6010C	Total/NA
Iron	17000		11.6	4.1	mg/Kg	1	☼	6010C	Total/NA
Lead	77.0		1.2	0.28	mg/Kg	1	☼	6010C	Total/NA
Magnesium	41000	B	23.3	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	275	B	0.23	0.037	mg/Kg	1	☼	6010C	Total/NA
Nickel	24.6		5.8	0.27	mg/Kg	1	☼	6010C	Total/NA
Potassium	3570		34.9	23.3	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.50	J	4.7	0.47	mg/Kg	1	☼	6010C	Total/NA
Sodium	721	B	163	15.1	mg/Kg	1	☼	6010C	Total/NA
Vanadium	22.1		0.58	0.13	mg/Kg	1	☼	6010C	Total/NA
Zinc	107		2.3	0.74	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.079		0.024	0.0095	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-2 (0 - 2)

Lab Sample ID: 480-148884-3

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-2 (0 - 2) (Continued)

Lab Sample ID: 480-148884-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	200	J	1800	190	ug/Kg	10	☼	8270D	Total/NA
Aluminum	3650		10.3	4.6	mg/Kg	1	☼	6010C	Total/NA
Arsenic	1.4	J	2.1	0.41	mg/Kg	1	☼	6010C	Total/NA
Barium	68.0		0.52	0.11	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.18	J	0.21	0.029	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.16	J	0.21	0.031	mg/Kg	1	☼	6010C	Total/NA
Calcium	145000	B	103	6.8	mg/Kg	2	☼	6010C	Total/NA
Chromium	10		0.52	0.21	mg/Kg	1	☼	6010C	Total/NA
Cobalt	2.3		0.52	0.052	mg/Kg	1	☼	6010C	Total/NA
Copper	6.1		2.1	0.43	mg/Kg	2	☼	6010C	Total/NA
Iron	5290		10.3	3.6	mg/Kg	1	☼	6010C	Total/NA
Lead	10.8		1.0	0.25	mg/Kg	1	☼	6010C	Total/NA
Magnesium	44700	B	20.7	0.96	mg/Kg	1	☼	6010C	Total/NA
Manganese	135	B	0.21	0.033	mg/Kg	1	☼	6010C	Total/NA
Nickel	7.0		5.2	0.24	mg/Kg	1	☼	6010C	Total/NA
Potassium	1430		31.0	20.7	mg/Kg	1	☼	6010C	Total/NA
Sodium	286	B	145	13.5	mg/Kg	1	☼	6010C	Total/NA
Vanadium	14.5		0.52	0.11	mg/Kg	1	☼	6010C	Total/NA
Zinc	20.2		2.1	0.66	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.020		0.020	0.0079	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-2 (6 -1 2)

Lab Sample ID: 480-148884-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	220	J	1800	180	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	380	J	1800	190	ug/Kg	10	☼	8270D	Total/NA
Pyrene	310	J	1800	210	ug/Kg	10	☼	8270D	Total/NA
Aluminum	2770		10.4	4.6	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.48	J	15.7	0.42	mg/Kg	1	☼	6010C	Total/NA
Arsenic	1.3	J	2.1	0.42	mg/Kg	1	☼	6010C	Total/NA
Barium	41.4		0.52	0.11	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.16	J	0.21	0.029	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.14	J	0.21	0.031	mg/Kg	1	☼	6010C	Total/NA
Calcium	253000	B	261	17.2	mg/Kg	5	☼	6010C	Total/NA
Chromium	6.5		0.52	0.21	mg/Kg	1	☼	6010C	Total/NA
Cobalt	2.0		0.52	0.052	mg/Kg	1	☼	6010C	Total/NA
Copper	4.3	J	5.2	1.1	mg/Kg	5	☼	6010C	Total/NA
Iron	4740		10.4	3.7	mg/Kg	1	☼	6010C	Total/NA
Lead	13.0		1.0	0.25	mg/Kg	1	☼	6010C	Total/NA
Magnesium	22200	B	20.9	0.97	mg/Kg	1	☼	6010C	Total/NA
Manganese	175	B	0.21	0.033	mg/Kg	1	☼	6010C	Total/NA
Nickel	6.4		5.2	0.24	mg/Kg	1	☼	6010C	Total/NA
Potassium	1420		31.3	20.9	mg/Kg	1	☼	6010C	Total/NA
Sodium	249	B	146	13.6	mg/Kg	1	☼	6010C	Total/NA
Vanadium	8.0		0.52	0.11	mg/Kg	1	☼	6010C	Total/NA
Zinc	22.7		2.1	0.67	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.020	J	0.021	0.0086	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-3 (0 - 2)

Lab Sample ID: 480-148884-5

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-3 (0 - 2) (Continued)

Lab Sample ID: 480-148884-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	2260		10.5	4.6	mg/Kg	1	☼	6010C	Total/NA
Arsenic	1.3	J	2.1	0.42	mg/Kg	1	☼	6010C	Total/NA
Barium	21.4		0.52	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.12	J	0.21	0.029	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.15	J	0.21	0.031	mg/Kg	1	☼	6010C	Total/NA
Calcium	165000	B	105	6.9	mg/Kg	2	☼	6010C	Total/NA
Chromium	8.3		0.52	0.21	mg/Kg	1	☼	6010C	Total/NA
Cobalt	2.1		0.52	0.052	mg/Kg	1	☼	6010C	Total/NA
Copper	9.2		2.1	0.44	mg/Kg	2	☼	6010C	Total/NA
Iron	4400		10.5	3.7	mg/Kg	1	☼	6010C	Total/NA
Lead	18.7		1.0	0.25	mg/Kg	1	☼	6010C	Total/NA
Magnesium	17300	B	21.0	0.97	mg/Kg	1	☼	6010C	Total/NA
Manganese	118	B	0.21	0.034	mg/Kg	1	☼	6010C	Total/NA
Nickel	8.9		5.2	0.24	mg/Kg	1	☼	6010C	Total/NA
Potassium	885		31.5	21.0	mg/Kg	1	☼	6010C	Total/NA
Sodium	260	B	147	13.6	mg/Kg	1	☼	6010C	Total/NA
Vanadium	31.3		0.52	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	24.0		2.1	0.67	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.041		0.021	0.0084	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-3 (6 - 12)

Lab Sample ID: 480-148884-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	J H	20	3.4	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	2.3	J H B	4.0	1.9	ug/Kg	1	☼	8260C	Total/NA
Toluene	0.34	J H	4.0	0.31	ug/Kg	1	☼	8260C	Total/NA
Aluminum	3510		10.7	4.7	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.5		2.1	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	45.3		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.18	J	0.21	0.030	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.19	J	0.21	0.032	mg/Kg	1	☼	6010C	Total/NA
Calcium	203000	B	268	17.7	mg/Kg	5	☼	6010C	Total/NA
Chromium	8.6		0.54	0.21	mg/Kg	1	☼	6010C	Total/NA
Cobalt	3.4		0.54	0.054	mg/Kg	1	☼	6010C	Total/NA
Copper	12.0		5.4	1.1	mg/Kg	5	☼	6010C	Total/NA
Iron	6870		10.7	3.8	mg/Kg	1	☼	6010C	Total/NA
Lead	22.8		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Magnesium	24500	B	21.5	0.99	mg/Kg	1	☼	6010C	Total/NA
Manganese	206	B	0.21	0.034	mg/Kg	1	☼	6010C	Total/NA
Nickel	9.5		5.4	0.25	mg/Kg	1	☼	6010C	Total/NA
Potassium	1360		32.2	21.5	mg/Kg	1	☼	6010C	Total/NA
Sodium	238	B	150	14.0	mg/Kg	1	☼	6010C	Total/NA
Vanadium	13.7		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	24.7		2.1	0.69	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.12		0.022	0.0089	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-4 (0 - 2)

Lab Sample ID: 480-148884-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	1940		10.3	4.5	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-4 (0 - 2) (Continued)

Lab Sample ID: 480-148884-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.64	J	15.4	0.41	mg/Kg	1	☼	6010C	Total/NA
Arsenic	1.9	J	2.1	0.41	mg/Kg	1	☼	6010C	Total/NA
Barium	15.6		0.51	0.11	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.14	J	0.21	0.029	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.11	J	0.21	0.031	mg/Kg	1	☼	6010C	Total/NA
Calcium	193000	B	257	17.0	mg/Kg	5	☼	6010C	Total/NA
Chromium	6.3		0.51	0.21	mg/Kg	1	☼	6010C	Total/NA
Cobalt	3.0		0.51	0.051	mg/Kg	1	☼	6010C	Total/NA
Copper	8.9		5.1	1.1	mg/Kg	5	☼	6010C	Total/NA
Iron	4060		10.3	3.6	mg/Kg	1	☼	6010C	Total/NA
Lead	14.1		1.0	0.25	mg/Kg	1	☼	6010C	Total/NA
Magnesium	8110	B	20.6	0.95	mg/Kg	1	☼	6010C	Total/NA
Manganese	160	B	0.21	0.033	mg/Kg	1	☼	6010C	Total/NA
Nickel	7.3		5.1	0.24	mg/Kg	1	☼	6010C	Total/NA
Potassium	1010		30.8	20.6	mg/Kg	1	☼	6010C	Total/NA
Sodium	374	B	144	13.4	mg/Kg	1	☼	6010C	Total/NA
Vanadium	10.5		0.51	0.11	mg/Kg	1	☼	6010C	Total/NA
Zinc	22.0		2.1	0.66	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.014	J	0.020	0.0082	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SS-4 (6 - 12)

Lab Sample ID: 480-148884-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	56	H B	25	4.2	ug/Kg	1	☼	8260C	Total/NA
Benzene	5.2	H	5.0	0.25	ug/Kg	1	☼	8260C	Total/NA
Methylcyclohexane	35	H	5.0	0.76	ug/Kg	1	☼	8260C	Total/NA
Toluene	0.67	J H	5.0	0.38	ug/Kg	1	☼	8260C	Total/NA
Anthracene	5500	J	18000	4500	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]anthracene	8200	J	18000	1800	ug/Kg	10	☼	8270D	Total/NA
Benzo[a]pyrene	7000	J	18000	2700	ug/Kg	10	☼	8270D	Total/NA
Benzo[b]fluoranthene	8200	J	18000	2900	ug/Kg	10	☼	8270D	Total/NA
Benzo[g,h,i]perylene	3900	J	18000	1900	ug/Kg	10	☼	8270D	Total/NA
Benzo[k]fluoranthene	3300	J	18000	2400	ug/Kg	10	☼	8270D	Total/NA
Chrysene	5300	J	18000	4100	ug/Kg	10	☼	8270D	Total/NA
Fluoranthene	20000		18000	1900	ug/Kg	10	☼	8270D	Total/NA
Fluorene	2800	J	18000	2200	ug/Kg	10	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	3700	J	18000	2300	ug/Kg	10	☼	8270D	Total/NA
Phenanthrene	19000		18000	2700	ug/Kg	10	☼	8270D	Total/NA
Pyrene	15000	J	18000	2200	ug/Kg	10	☼	8270D	Total/NA
4,4'-DDT	9.4	J	18	4.2	ug/Kg	10	☼	8081B	Total/NA
Aluminum	6040		10.9	4.8	mg/Kg	1	☼	6010C	Total/NA
Antimony	1.1	J	16.3	0.43	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.6		2.2	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	117		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.37		0.22	0.030	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.32		0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Calcium	61600	B	54.4	3.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	11.4		0.54	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	5.4		0.54	0.054	mg/Kg	1	☼	6010C	Total/NA
Copper	25.4		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-4 (6 - 12) (Continued)

Lab Sample ID: 480-148884-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Iron	18200		10.9	3.8	mg/Kg	1		*	6010C	Total/NA
Lead	854		1.1	0.26	mg/Kg	1		*	6010C	Total/NA
Magnesium	16500	B	21.7	1.0	mg/Kg	1		*	6010C	Total/NA
Manganese	264	B	0.22	0.035	mg/Kg	1		*	6010C	Total/NA
Nickel	16.5		5.4	0.25	mg/Kg	1		*	6010C	Total/NA
Potassium	1760		32.6	21.7	mg/Kg	1		*	6010C	Total/NA
Sodium	640	B	152	14.1	mg/Kg	1		*	6010C	Total/NA
Vanadium	19.6		0.54	0.12	mg/Kg	1		*	6010C	Total/NA
Zinc	243		2.2	0.70	mg/Kg	1		*	6010C	Total/NA
Mercury	0.14		0.020	0.0081	mg/Kg	1		*	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-1 (0 - 2)

Lab Sample ID: 480-148884-1

Date Collected: 02/07/19 13:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 84.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		39000	5800	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
bis (2-chloroisopropyl) ether	ND		39000	7800	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
2,4,5-Trichlorophenol	ND		39000	11000	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
2,4,6-Trichlorophenol	ND		39000	7800	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
2,4-Dichlorophenol	ND		39000	4200	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
2,4-Dimethylphenol	ND		39000	9500	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
2,4-Dinitrophenol	ND		380000	180000	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
2,4-Dinitrotoluene	ND		39000	8100	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
2,6-Dinitrotoluene	ND		39000	4600	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
2-Chloronaphthalene	ND		39000	6500	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
2-Chlorophenol	ND		39000	7200	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
2-Methylphenol	ND		39000	4600	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
2-Methylnaphthalene	ND		39000	7800	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
2-Nitroaniline	ND		76000	5800	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
2-Nitrophenol	ND		39000	11000	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
3,3'-Dichlorobenzidine	ND		76000	46000	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
3-Nitroaniline	ND		76000	11000	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
4,6-Dinitro-2-methylphenol	ND		76000	39000	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
4-Bromophenyl phenyl ether	ND		39000	5500	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
4-Chloro-3-methylphenol	ND		39000	9700	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
4-Chloroaniline	ND		39000	9700	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
4-Chlorophenyl phenyl ether	ND		39000	4800	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
4-Methylphenol	ND		76000	4600	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
4-Nitroaniline	ND		76000	21000	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
4-Nitrophenol	ND		76000	27000	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Acenaphthene	ND		39000	5800	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Acenaphthylene	ND		39000	5100	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Acetophenone	ND		39000	5300	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Anthracene	ND		39000	9700	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Atrazine	ND		39000	14000	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Benzaldehyde	ND		39000	31000	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Benzo[a]anthracene	ND		39000	3900	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Benzo[a]pyrene	ND		39000	5800	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Benzo[b]fluoranthene	ND		39000	6200	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Benzo[g,h,i]perylene	ND		39000	4200	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Benzo[k]fluoranthene	ND		39000	5100	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Bis(2-chloroethoxy)methane	ND		39000	8300	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Bis(2-chloroethyl)ether	ND		39000	5100	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Bis(2-ethylhexyl) phthalate	ND		39000	13000	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Butyl benzyl phthalate	ND		39000	6500	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Caprolactam	ND		39000	12000	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Carbazole	ND		39000	4600	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Chrysene	ND		39000	8800	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Dibenz(a,h)anthracene	ND		39000	6900	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Di-n-butyl phthalate	ND		39000	6700	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Di-n-octyl phthalate	ND		39000	4600	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Dibenzofuran	ND		39000	4600	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Diethyl phthalate	ND		39000	5100	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20
Dimethyl phthalate	ND		39000	4600	ug/Kg	*	02/12/19 14:59	02/13/19 16:57	20

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-1 (0 - 2)

Lab Sample ID: 480-148884-1

Date Collected: 02/07/19 13:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 84.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		39000	4200	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
Fluorene	ND		39000	4600	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
Hexachlorobenzene	ND		39000	5300	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
Hexachlorobutadiene	ND		39000	5800	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
Hexachlorocyclopentadiene	ND		39000	5300	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
Hexachloroethane	ND		39000	5100	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
Indeno[1,2,3-cd]pyrene	ND		39000	4800	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
Isophorone	ND		39000	8300	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
N-Nitrosodi-n-propylamine	ND		39000	6700	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
N-Nitrosodiphenylamine	ND		39000	32000	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
Naphthalene	ND		39000	5100	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
Nitrobenzene	ND		39000	4400	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
Pentachlorophenol	ND		76000	39000	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
Phenanthrene	ND		39000	5800	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
Phenol	ND		39000	6000	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
Pyrene	ND		39000	4600	ug/Kg	☼	02/12/19 14:59	02/13/19 16:57	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	0	X	53 - 120				02/12/19 14:59	02/13/19 16:57	20
Phenol-d5 (Surr)	0	X	54 - 120				02/12/19 14:59	02/13/19 16:57	20
p-Terphenyl-d14 (Surr)	0	X	65 - 121				02/12/19 14:59	02/13/19 16:57	20
2,4,6-Tribromophenol (Surr)	0	X	54 - 120				02/12/19 14:59	02/13/19 16:57	20
2-Fluorobiphenyl	0	X	60 - 120				02/12/19 14:59	02/13/19 16:57	20
2-Fluorophenol (Surr)	0	X	52 - 120				02/12/19 14:59	02/13/19 16:57	20

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	4150		11.9	5.2	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Antimony	0.50	J	17.9	0.48	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Arsenic	3.1		2.4	0.48	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Barium	47.2		0.60	0.13	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Beryllium	0.24		0.24	0.033	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Cadmium	0.76		0.24	0.036	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Calcium	150000	B	119	7.9	mg/Kg	☼	02/13/19 07:47	02/14/19 11:16	2
Chromium	13.4		0.60	0.24	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Cobalt	4.8		0.60	0.060	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Copper	19.8		2.4	0.50	mg/Kg	☼	02/13/19 07:47	02/14/19 11:16	2
Iron	7840		11.9	4.2	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Lead	93.3		1.2	0.29	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Magnesium	26400	B	23.8	1.1	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Manganese	252	B	0.24	0.038	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Nickel	13.7		6.0	0.27	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Potassium	1620		35.8	23.8	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Selenium	0.78	J	4.8	0.48	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Silver	ND		0.72	0.24	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Sodium	223	B	167	15.5	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Thallium	ND		7.2	0.36	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Vanadium	20.0		0.60	0.13	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1
Zinc	569		2.4	0.76	mg/Kg	☼	02/13/19 07:47	02/13/19 20:04	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-1 (0 - 2)

Lab Sample ID: 480-148884-1

Date Collected: 02/07/19 13:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 84.5

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.050		0.023	0.0094	mg/Kg	☼	02/14/19 12:00	02/14/19 14:08	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-1 (6 - 12)

Lab Sample ID: 480-148884-2

Date Collected: 02/07/19 13:45

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 83.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.1	0.30	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
1,1,1,2,2-Tetrachloroethane	ND		4.1	0.67	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
1,1,2-Trichloroethane	ND		4.1	0.54	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.1	0.94	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
1,1-Dichloroethane	ND		4.1	0.50	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
1,1-Dichloroethene	ND		4.1	0.51	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
1,2,4-Trichlorobenzene	ND		4.1	0.25	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
1,2-Dibromo-3-Chloropropane	ND		4.1	2.1	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
1,2-Dichlorobenzene	ND		4.1	0.32	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
1,2-Dichloroethane	ND		4.1	0.21	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
1,2-Dichloropropane	ND		4.1	2.1	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
1,3-Dichlorobenzene	ND		4.1	0.21	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
1,4-Dichlorobenzene	ND		4.1	0.58	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
2-Butanone (MEK)	ND		21	1.5	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
2-Hexanone	ND		21	2.1	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
4-Methyl-2-pentanone (MIBK)	ND		21	1.4	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Acetone	15	J	21	3.5	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Benzene	ND		4.1	0.20	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Bromodichloromethane	ND		4.1	0.55	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Bromoform	ND		4.1	2.1	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Bromomethane	ND		4.1	0.37	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Carbon disulfide	ND		4.1	2.1	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Carbon tetrachloride	ND		4.1	0.40	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Chlorobenzene	ND		4.1	0.55	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Dibromochloromethane	ND		4.1	0.53	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Chloroethane	ND		4.1	0.93	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Chloroform	ND		4.1	0.26	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Chloromethane	ND		4.1	0.25	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
cis-1,2-Dichloroethene	ND		4.1	0.53	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
cis-1,3-Dichloropropene	ND		4.1	0.59	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Cyclohexane	ND		4.1	0.58	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Dichlorodifluoromethane	ND		4.1	0.34	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Ethylbenzene	ND		4.1	0.28	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
1,2-Dibromoethane	ND		4.1	0.53	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Isopropylbenzene	ND		4.1	0.62	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Methyl acetate	ND		21	2.5	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Methyl tert-butyl ether	ND		4.1	0.41	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Methylcyclohexane	ND		4.1	0.63	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Methylene Chloride	ND		4.1	1.9	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Styrene	ND		4.1	0.21	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Tetrachloroethene	ND		4.1	0.55	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Toluene	ND		4.1	0.31	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
trans-1,2-Dichloroethene	ND		4.1	0.43	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
trans-1,3-Dichloropropene	ND		4.1	1.8	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Trichloroethene	ND		4.1	0.91	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Trichlorofluoromethane	ND		4.1	0.39	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Vinyl chloride	ND		4.1	0.50	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1
Xylenes, Total	ND		8.3	0.69	ug/Kg	☼	02/09/19 12:30	02/11/19 18:11	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-1 (6 - 12)

Lab Sample ID: 480-148884-2

Date Collected: 02/07/19 13:45

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 83.3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		71 - 125	02/09/19 12:30	02/11/19 18:11	1
1,2-Dichloroethane-d4 (Surr)	104		64 - 126	02/09/19 12:30	02/11/19 18:11	1
4-Bromofluorobenzene (Surr)	98		72 - 126	02/09/19 12:30	02/11/19 18:11	1
Dibromofluoromethane (Surr)	102		60 - 140	02/09/19 12:30	02/11/19 18:11	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		4000	590	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
bis (2-chloroisopropyl) ether	ND		4000	800	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
2,4,5-Trichlorophenol	ND		4000	1100	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
2,4,6-Trichlorophenol	ND		4000	800	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
2,4-Dichlorophenol	ND		4000	420	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
2,4-Dimethylphenol	ND		4000	960	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
2,4-Dinitrophenol	ND		39000	18000	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
2,4-Dinitrotoluene	ND		4000	820	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
2,6-Dinitrotoluene	ND		4000	470	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
2-Chloronaphthalene	ND		4000	660	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
2-Chlorophenol	ND		4000	730	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
2-Methylphenol	ND		4000	470	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
2-Methylnaphthalene	ND		4000	800	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
2-Nitroaniline	ND		7700	590	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
2-Nitrophenol	ND		4000	1100	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
3,3'-Dichlorobenzidine	ND		7700	4700	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
3-Nitroaniline	ND		7700	1100	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
4,6-Dinitro-2-methylphenol	ND		7700	4000	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
4-Bromophenyl phenyl ether	ND		4000	560	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
4-Chloro-3-methylphenol	ND		4000	990	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
4-Chloroaniline	ND		4000	990	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
4-Chlorophenyl phenyl ether	ND		4000	490	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
4-Methylphenol	ND		7700	470	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
4-Nitroaniline	ND		7700	2100	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
4-Nitrophenol	ND		7700	2800	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Acenaphthene	ND		4000	590	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Acenaphthylene	ND		4000	520	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Acetophenone	ND		4000	540	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Anthracene	ND		4000	990	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Atrazine	ND		4000	1400	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Benzaldehyde	ND		4000	3200	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Benzo[a]anthracene	ND		4000	400	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Benzo[a]pyrene	ND		4000	590	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Benzo[b]fluoranthene	ND		4000	630	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Benzo[g,h,i]perylene	ND		4000	420	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Benzo[k]fluoranthene	ND		4000	520	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Bis(2-chloroethoxy)methane	ND		4000	840	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Bis(2-chloroethyl)ether	ND		4000	520	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Bis(2-ethylhexyl) phthalate	ND		4000	1400	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Butyl benzyl phthalate	ND		4000	660	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Caprolactam	ND		4000	1200	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Carbazole	ND		4000	470	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Chrysene	ND		4000	890	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-1 (6 - 12)

Lab Sample ID: 480-148884-2

Date Collected: 02/07/19 13:45

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 83.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		4000	700	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Di-n-butyl phthalate	ND		4000	680	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Di-n-octyl phthalate	ND		4000	470	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Dibenzofuran	ND		4000	470	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Diethyl phthalate	ND		4000	520	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Dimethyl phthalate	ND		4000	470	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Fluoranthene	ND		4000	420	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Fluorene	ND		4000	470	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Hexachlorobenzene	ND		4000	540	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Hexachlorobutadiene	ND		4000	590	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Hexachlorocyclopentadiene	ND		4000	540	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Hexachloroethane	ND		4000	520	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Indeno[1,2,3-cd]pyrene	ND		4000	490	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Isophorone	ND		4000	840	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
N-Nitrosodi-n-propylamine	ND		4000	680	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
N-Nitrosodiphenylamine	ND		4000	3200	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Naphthalene	ND		4000	520	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Nitrobenzene	ND		4000	450	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Pentachlorophenol	ND		7700	4000	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Phenanthrene	ND		4000	590	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Phenol	ND		4000	610	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Pyrene	ND		4000	470	ug/Kg	☼	02/12/19 14:59	02/13/19 17:22	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	118		53 - 120				02/12/19 14:59	02/13/19 17:22	20
Phenol-d5 (Surr)	91		54 - 120				02/12/19 14:59	02/13/19 17:22	20
p-Terphenyl-d14 (Surr)	105		65 - 121				02/12/19 14:59	02/13/19 17:22	20
2,4,6-Tribromophenol (Surr)	112		54 - 120				02/12/19 14:59	02/13/19 17:22	20
2-Fluorobiphenyl	94		60 - 120				02/12/19 14:59	02/13/19 17:22	20
2-Fluorophenol (Surr)	99		52 - 120				02/12/19 14:59	02/13/19 17:22	20

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		100	19	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
4,4'-DDE	ND		100	21	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
4,4'-DDT	ND		100	23	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
Aldrin	ND		100	24	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
alpha-BHC	ND		100	18	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
cis-Chlordane	ND		100	50	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
beta-BHC	ND		100	18	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
delta-BHC	ND		100	19	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
Dieldrin	ND		100	24	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
Endosulfan I	ND		100	19	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
Endosulfan II	ND		100	18	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
Endosulfan sulfate	ND		100	19	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
Endrin	ND		100	20	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
Endrin aldehyde	ND		100	25	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
Endrin ketone	ND		100	24	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
gamma-BHC (Lindane)	ND		100	18	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
trans-Chlordane	ND		100	32	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-1 (6 - 12)

Lab Sample ID: 480-148884-2

Date Collected: 02/07/19 13:45

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 83.3

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	ND		100	22	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
Heptachlor epoxide	ND		100	26	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
Methoxychlor	ND		100	20	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50
Toxaphene	ND		1000	580	ug/Kg	☼	02/12/19 14:56	02/14/19 11:18	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	X	45 - 120	02/12/19 14:56	02/14/19 11:18	50
Tetrachloro-m-xylene	0	X	30 - 124	02/12/19 14:56	02/14/19 11:18	50

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.23	0.044	mg/Kg	☼	02/13/19 14:56	02/14/19 12:45	1
PCB-1221	ND		0.23	0.044	mg/Kg	☼	02/13/19 14:56	02/14/19 12:45	1
PCB-1232	ND		0.23	0.044	mg/Kg	☼	02/13/19 14:56	02/14/19 12:45	1
PCB-1242	ND		0.23	0.044	mg/Kg	☼	02/13/19 14:56	02/14/19 12:45	1
PCB-1248	ND		0.23	0.044	mg/Kg	☼	02/13/19 14:56	02/14/19 12:45	1
PCB-1254	ND		0.23	0.11	mg/Kg	☼	02/13/19 14:56	02/14/19 12:45	1
PCB-1260	ND		0.23	0.11	mg/Kg	☼	02/13/19 14:56	02/14/19 12:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	108		60 - 154	02/13/19 14:56	02/14/19 12:45	1
DCB Decachlorobiphenyl	99		65 - 174	02/13/19 14:56	02/14/19 12:45	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		20	6.4	ug/Kg	☼	02/11/19 14:31	02/15/19 08:15	1
2,4-D	ND		20	13	ug/Kg	☼	02/11/19 14:31	02/15/19 08:15	1
Silvex (2,4,5-TP)	ND		20	7.2	ug/Kg	☼	02/11/19 14:31	02/15/19 08:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	82		28 - 129	02/11/19 14:31	02/15/19 08:15	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10900		11.6	5.1	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Antimony	0.69	J	17.5	0.47	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Arsenic	6.0		2.3	0.47	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Barium	74.3		0.58	0.13	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Beryllium	0.43		0.23	0.033	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Cadmium	0.55		0.23	0.035	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Calcium	79800	B	58.2	3.8	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Chromium	18.1		0.58	0.23	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Cobalt	7.5		0.58	0.058	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Copper	28.7		1.2	0.24	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Iron	17000		11.6	4.1	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Lead	77.0		1.2	0.28	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Magnesium	41000	B	23.3	1.1	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Manganese	275	B	0.23	0.037	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Nickel	24.6		5.8	0.27	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Potassium	3570		34.9	23.3	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Selenium	0.50	J	4.7	0.47	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-1 (6 - 12)

Lab Sample ID: 480-148884-2

Date Collected: 02/07/19 13:45

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 83.3

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.70	0.23	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Sodium	721	B	163	15.1	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Thallium	ND		7.0	0.35	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Vanadium	22.1		0.58	0.13	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1
Zinc	107		2.3	0.74	mg/Kg	☼	02/13/19 07:47	02/13/19 20:19	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.079		0.024	0.0095	mg/Kg	☼	02/14/19 12:00	02/14/19 14:09	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-2 (0 - 2)

Lab Sample ID: 480-148884-3

Date Collected: 02/07/19 14:15

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 95.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		1800	260	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
bis (2-chloroisopropyl) ether	ND		1800	350	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
2,4,5-Trichlorophenol	ND		1800	480	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
2,4,6-Trichlorophenol	ND		1800	350	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
2,4-Dichlorophenol	ND		1800	190	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
2,4-Dimethylphenol	ND		1800	430	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
2,4-Dinitrophenol	ND		17000	8100	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
2,4-Dinitrotoluene	ND		1800	360	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
2,6-Dinitrotoluene	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
2-Chloronaphthalene	ND		1800	290	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
2-Chlorophenol	ND		1800	320	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
2-Methylphenol	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
2-Methylnaphthalene	ND		1800	350	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
2-Nitroaniline	ND		3400	260	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
2-Nitrophenol	ND		1800	500	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
3,3'-Dichlorobenzidine	ND		3400	2100	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
3-Nitroaniline	ND		3400	490	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
4,6-Dinitro-2-methylphenol	ND		3400	1800	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
4-Bromophenyl phenyl ether	ND		1800	250	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
4-Chloro-3-methylphenol	ND		1800	440	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
4-Chloroaniline	ND		1800	440	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
4-Chlorophenyl phenyl ether	ND		1800	220	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
4-Methylphenol	ND		3400	210	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
4-Nitroaniline	ND		3400	920	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
4-Nitrophenol	ND		3400	1200	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Acenaphthene	ND		1800	260	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Acenaphthylene	ND		1800	230	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Acetophenone	ND		1800	240	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Anthracene	ND		1800	440	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Atrazine	ND		1800	610	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Benzaldehyde	ND		1800	1400	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Benzo[a]anthracene	ND		1800	180	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Benzo[a]pyrene	ND		1800	260	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Benzo[b]fluoranthene	ND		1800	280	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Benzo[g,h,i]perylene	ND		1800	190	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Benzo[k]fluoranthene	ND		1800	230	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Bis(2-chloroethoxy)methane	ND		1800	370	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Bis(2-chloroethyl)ether	ND		1800	230	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Bis(2-ethylhexyl) phthalate	ND		1800	600	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Butyl benzyl phthalate	ND		1800	290	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Caprolactam	ND		1800	530	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Carbazole	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Chrysene	ND		1800	390	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Dibenz(a,h)anthracene	ND		1800	310	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Di-n-butyl phthalate	ND		1800	300	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Di-n-octyl phthalate	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Dibenzofuran	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Diethyl phthalate	ND		1800	230	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Dimethyl phthalate	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-2 (0 - 2)

Lab Sample ID: 480-148884-3

Date Collected: 02/07/19 14:15

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 95.9

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	200	J	1800	190	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Fluorene	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Hexachlorobenzene	ND		1800	240	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Hexachlorobutadiene	ND		1800	260	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Hexachlorocyclopentadiene	ND		1800	240	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Hexachloroethane	ND		1800	230	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Indeno[1,2,3-cd]pyrene	ND		1800	220	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Isophorone	ND		1800	370	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
N-Nitrosodi-n-propylamine	ND		1800	300	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
N-Nitrosodiphenylamine	ND		1800	1400	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Naphthalene	ND		1800	230	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Nitrobenzene	ND		1800	200	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Pentachlorophenol	ND		3400	1800	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Phenanthrene	ND		1800	260	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Phenol	ND		1800	270	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Pyrene	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 17:47	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	109		53 - 120				02/12/19 14:59	02/13/19 17:47	10
Phenol-d5 (Surr)	91		54 - 120				02/12/19 14:59	02/13/19 17:47	10
p-Terphenyl-d14 (Surr)	108		65 - 121				02/12/19 14:59	02/13/19 17:47	10
2,4,6-Tribromophenol (Surr)	99		54 - 120				02/12/19 14:59	02/13/19 17:47	10
2-Fluorobiphenyl	101		60 - 120				02/12/19 14:59	02/13/19 17:47	10
2-Fluorophenol (Surr)	100		52 - 120				02/12/19 14:59	02/13/19 17:47	10

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3650		10.3	4.6	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Antimony	ND		15.5	0.41	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Arsenic	1.4	J	2.1	0.41	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Barium	68.0		0.52	0.11	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Beryllium	0.18	J	0.21	0.029	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Cadmium	0.16	J	0.21	0.031	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Calcium	145000	B	103	6.8	mg/Kg	☼	02/13/19 07:47	02/14/19 11:20	2
Chromium	10		0.52	0.21	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Cobalt	2.3		0.52	0.052	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Copper	6.1		2.1	0.43	mg/Kg	☼	02/13/19 07:47	02/14/19 11:20	2
Iron	5290		10.3	3.6	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Lead	10.8		1.0	0.25	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Magnesium	44700	B	20.7	0.96	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Manganese	135	B	0.21	0.033	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Nickel	7.0		5.2	0.24	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Potassium	1430		31.0	20.7	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Selenium	ND		4.1	0.41	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Silver	ND		0.62	0.21	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Sodium	286	B	145	13.5	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Thallium	ND		6.2	0.31	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Vanadium	14.5		0.52	0.11	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1
Zinc	20.2		2.1	0.66	mg/Kg	☼	02/13/19 07:47	02/13/19 20:22	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-2 (0 - 2)

Lab Sample ID: 480-148884-3

Date Collected: 02/07/19 14:15

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 95.9

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020		0.020	0.0079	mg/Kg	☼	02/14/19 12:00	02/14/19 14:11	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-2 (6 -1 2)

Lab Sample ID: 480-148884-4

Date Collected: 02/07/19 14:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 94.0

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.1	0.30	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
1,1,2,2-Tetrachloroethane	ND		4.1	0.67	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
1,1,2-Trichloroethane	ND		4.1	0.53	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.1	0.94	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
1,1-Dichloroethane	ND		4.1	0.50	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
1,1-Dichloroethene	ND		4.1	0.50	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
1,2,4-Trichlorobenzene	ND		4.1	0.25	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
1,2-Dibromo-3-Chloropropane	ND		4.1	2.1	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
1,2-Dichlorobenzene	ND		4.1	0.32	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
1,2-Dichloroethane	ND		4.1	0.21	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
1,2-Dichloropropane	ND		4.1	2.1	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
1,3-Dichlorobenzene	ND		4.1	0.21	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
1,4-Dichlorobenzene	ND		4.1	0.57	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
2-Butanone (MEK)	ND		21	1.5	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
2-Hexanone	ND		21	2.1	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
4-Methyl-2-pentanone (MIBK)	ND		21	1.3	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Acetone	ND		21	3.5	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Benzene	ND		4.1	0.20	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Bromodichloromethane	ND		4.1	0.55	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Bromoform	ND		4.1	2.1	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Bromomethane	ND		4.1	0.37	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Carbon disulfide	ND		4.1	2.1	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Carbon tetrachloride	ND		4.1	0.40	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Chlorobenzene	ND		4.1	0.54	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Dibromochloromethane	ND		4.1	0.53	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Chloroethane	ND	*	4.1	0.93	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Chloroform	ND		4.1	0.25	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Chloromethane	ND		4.1	0.25	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
cis-1,2-Dichloroethene	ND		4.1	0.53	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
cis-1,3-Dichloropropene	ND		4.1	0.59	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Cyclohexane	ND		4.1	0.57	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Dichlorodifluoromethane	ND		4.1	0.34	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Ethylbenzene	ND		4.1	0.28	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
1,2-Dibromoethane	ND		4.1	0.53	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Isopropylbenzene	ND		4.1	0.62	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Methyl acetate	ND		21	2.5	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Methyl tert-butyl ether	ND		4.1	0.40	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Methylcyclohexane	ND		4.1	0.62	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Methylene Chloride	ND		4.1	1.9	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Styrene	ND		4.1	0.21	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Tetrachloroethene	ND		4.1	0.55	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Toluene	ND		4.1	0.31	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
trans-1,2-Dichloroethene	ND		4.1	0.42	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
trans-1,3-Dichloropropene	ND		4.1	1.8	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Trichloroethene	ND		4.1	0.90	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Trichlorofluoromethane	ND		4.1	0.39	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Vinyl chloride	ND		4.1	0.50	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1
Xylenes, Total	ND		8.2	0.69	ug/Kg	☼	02/09/19 12:30	02/12/19 01:17	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-2 (6 -1 2)

Lab Sample ID: 480-148884-4

Date Collected: 02/07/19 14:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 94.0

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	104		71 - 125	02/09/19 12:30	02/12/19 01:17	1
1,2-Dichloroethane-d4 (Surr)	105		64 - 126	02/09/19 12:30	02/12/19 01:17	1
4-Bromofluorobenzene (Surr)	94		72 - 126	02/09/19 12:30	02/12/19 01:17	1
Dibromofluoromethane (Surr)	105		60 - 140	02/09/19 12:30	02/12/19 01:17	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		1800	270	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
bis (2-chloroisopropyl) ether	ND		1800	360	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
2,4,5-Trichlorophenol	ND		1800	490	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
2,4,6-Trichlorophenol	ND		1800	360	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
2,4-Dichlorophenol	ND		1800	190	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
2,4-Dimethylphenol	ND		1800	440	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
2,4-Dinitrophenol	ND		18000	8300	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
2,4-Dinitrotoluene	ND		1800	370	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
2,6-Dinitrotoluene	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
2-Chloronaphthalene	ND		1800	300	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
2-Chlorophenol	ND		1800	330	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
2-Methylphenol	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
2-Methylnaphthalene	ND		1800	360	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
2-Nitroaniline	ND		3500	270	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
2-Nitrophenol	ND		1800	510	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
3,3'-Dichlorobenzidine	ND		3500	2100	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
3-Nitroaniline	ND		3500	500	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
4,6-Dinitro-2-methylphenol	ND		3500	1800	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
4-Bromophenyl phenyl ether	ND		1800	260	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
4-Chloro-3-methylphenol	ND		1800	450	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
4-Chloroaniline	ND		1800	450	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
4-Chlorophenyl phenyl ether	ND		1800	220	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
4-Methylphenol	ND		3500	210	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
4-Nitroaniline	ND		3500	950	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
4-Nitrophenol	ND		3500	1300	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Acenaphthene	ND		1800	270	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Acenaphthylene	ND		1800	230	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Acetophenone	ND		1800	240	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Anthracene	ND		1800	450	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Atrazine	ND		1800	630	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Benzaldehyde	ND		1800	1400	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Benzo[a]anthracene	220	J	1800	180	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Benzo[a]pyrene	ND		1800	270	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Benzo[b]fluoranthene	ND		1800	290	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Benzo[g,h,i]perylene	ND		1800	190	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Benzo[k]fluoranthene	ND		1800	230	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Bis(2-chloroethoxy)methane	ND		1800	380	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Bis(2-chloroethyl)ether	ND		1800	230	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Bis(2-ethylhexyl) phthalate	ND		1800	620	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Butyl benzyl phthalate	ND		1800	300	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Caprolactam	ND		1800	540	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Carbazole	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Chrysene	ND		1800	400	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-2 (6 -1 2)

Lab Sample ID: 480-148884-4

Date Collected: 02/07/19 14:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 94.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		1800	320	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Di-n-butyl phthalate	ND		1800	310	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Di-n-octyl phthalate	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Dibenzofuran	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Diethyl phthalate	ND		1800	230	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Dimethyl phthalate	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Fluoranthene	380	J	1800	190	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Fluorene	ND		1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Hexachlorobenzene	ND		1800	240	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Hexachlorobutadiene	ND		1800	270	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Hexachlorocyclopentadiene	ND		1800	240	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Hexachloroethane	ND		1800	230	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Indeno[1,2,3-cd]pyrene	ND		1800	220	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Isophorone	ND		1800	380	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
N-Nitrosodi-n-propylamine	ND		1800	310	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
N-Nitrosodiphenylamine	ND		1800	1500	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Naphthalene	ND		1800	230	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Nitrobenzene	ND		1800	200	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Pentachlorophenol	ND		3500	1800	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Phenanthrene	ND		1800	270	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Phenol	ND		1800	280	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Pyrene	310	J	1800	210	ug/Kg	☼	02/12/19 14:59	02/13/19 18:12	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	105		53 - 120				02/12/19 14:59	02/13/19 18:12	10
Phenol-d5 (Surr)	90		54 - 120				02/12/19 14:59	02/13/19 18:12	10
p-Terphenyl-d14 (Surr)	109		65 - 121				02/12/19 14:59	02/13/19 18:12	10
2,4,6-Tribromophenol (Surr)	98		54 - 120				02/12/19 14:59	02/13/19 18:12	10
2-Fluorobiphenyl	94		60 - 120				02/12/19 14:59	02/13/19 18:12	10
2-Fluorophenol (Surr)	93		52 - 120				02/12/19 14:59	02/13/19 18:12	10

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		88	17	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
4,4'-DDE	ND		88	18	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
4,4'-DDT	ND		88	20	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
Aldrin	ND		88	22	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
alpha-BHC	ND		88	16	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
cis-Chlordane	ND		88	44	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
beta-BHC	ND		88	16	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
delta-BHC	ND		88	16	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
Dieldrin	ND		88	21	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
Endosulfan I	ND		88	17	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
Endosulfan II	ND		88	16	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
Endosulfan sulfate	ND		88	16	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
Endrin	ND		88	17	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
Endrin aldehyde	ND		88	22	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
Endrin ketone	ND		88	22	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
gamma-BHC (Lindane)	ND		88	16	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
trans-Chlordane	ND		88	28	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-2 (6 -1 2)

Lab Sample ID: 480-148884-4

Date Collected: 02/07/19 14:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 94.0

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	ND		88	19	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
Heptachlor epoxide	ND		88	23	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
Methoxychlor	ND		88	18	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
Toxaphene	ND		880	510	ug/Kg	☼	02/12/19 14:56	02/14/19 11:38	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	X	45 - 120				02/12/19 14:56	02/14/19 11:38	50
Tetrachloro-m-xylene	0	X	30 - 124				02/12/19 14:56	02/14/19 11:38	50

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.24	0.047	mg/Kg	☼	02/13/19 14:56	02/14/19 13:01	1
PCB-1221	ND		0.24	0.047	mg/Kg	☼	02/13/19 14:56	02/14/19 13:01	1
PCB-1232	ND		0.24	0.047	mg/Kg	☼	02/13/19 14:56	02/14/19 13:01	1
PCB-1242	ND		0.24	0.047	mg/Kg	☼	02/13/19 14:56	02/14/19 13:01	1
PCB-1248	ND		0.24	0.047	mg/Kg	☼	02/13/19 14:56	02/14/19 13:01	1
PCB-1254	ND		0.24	0.11	mg/Kg	☼	02/13/19 14:56	02/14/19 13:01	1
PCB-1260	ND		0.24	0.11	mg/Kg	☼	02/13/19 14:56	02/14/19 13:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	91		60 - 154				02/13/19 14:56	02/14/19 13:01	1
DCB Decachlorobiphenyl	89		65 - 174				02/13/19 14:56	02/14/19 13:01	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		18	5.6	ug/Kg	☼	02/11/19 14:31	02/15/19 08:44	1
2,4-D	ND		18	11	ug/Kg	☼	02/11/19 14:31	02/15/19 08:44	1
Silvex (2,4,5-TP)	ND		18	6.3	ug/Kg	☼	02/11/19 14:31	02/15/19 08:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	58		28 - 129				02/11/19 14:31	02/15/19 08:44	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2770		10.4	4.6	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Antimony	0.48	J	15.7	0.42	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Arsenic	1.3	J	2.1	0.42	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Barium	41.4		0.52	0.11	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Beryllium	0.16	J	0.21	0.029	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Cadmium	0.14	J	0.21	0.031	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Calcium	253000	B	261	17.2	mg/Kg	☼	02/13/19 07:47	02/14/19 11:23	5
Chromium	6.5		0.52	0.21	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Cobalt	2.0		0.52	0.052	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Copper	4.3	J	5.2	1.1	mg/Kg	☼	02/13/19 07:47	02/14/19 11:23	5
Iron	4740		10.4	3.7	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Lead	13.0		1.0	0.25	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Magnesium	22200	B	20.9	0.97	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Manganese	175	B	0.21	0.033	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Nickel	6.4		5.2	0.24	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Potassium	1420		31.3	20.9	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Selenium	ND		4.2	0.42	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-2 (6 -1 2)

Lab Sample ID: 480-148884-4

Date Collected: 02/07/19 14:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 94.0

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.63	0.21	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Sodium	249	B	146	13.6	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Thallium	ND		6.3	0.31	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Vanadium	8.0		0.52	0.11	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1
Zinc	22.7		2.1	0.67	mg/Kg	☼	02/13/19 07:47	02/13/19 20:26	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	J	0.021	0.0086	mg/Kg	☼	02/14/19 12:00	02/14/19 14:14	1



Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-3 (0 - 2)

Lab Sample ID: 480-148884-5

Date Collected: 02/07/19 08:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 94.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		35000	5200	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
bis (2-chloroisopropyl) ether	ND		35000	7100	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
2,4,5-Trichlorophenol	ND		35000	9500	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
2,4,6-Trichlorophenol	ND		35000	7100	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
2,4-Dichlorophenol	ND		35000	3700	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
2,4-Dimethylphenol	ND		35000	8500	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
2,4-Dinitrophenol	ND		340000	160000	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
2,4-Dinitrotoluene	ND		35000	7300	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
2,6-Dinitrotoluene	ND		35000	4200	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
2-Chloronaphthalene	ND		35000	5800	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
2-Chlorophenol	ND		35000	6400	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
2-Methylphenol	ND		35000	4200	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
2-Methylnaphthalene	ND		35000	7100	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
2-Nitroaniline	ND		68000	5200	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
2-Nitrophenol	ND		35000	10000	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
3,3'-Dichlorobenzidine	ND		68000	42000	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
3-Nitroaniline	ND		68000	9800	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
4,6-Dinitro-2-methylphenol	ND		68000	35000	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
4-Bromophenyl phenyl ether	ND		35000	5000	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
4-Chloro-3-methylphenol	ND		35000	8700	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
4-Chloroaniline	ND		35000	8700	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
4-Chlorophenyl phenyl ether	ND		35000	4400	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
4-Methylphenol	ND		68000	4200	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
4-Nitroaniline	ND		68000	18000	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
4-Nitrophenol	ND		68000	25000	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Acenaphthene	ND		35000	5200	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Acenaphthylene	ND		35000	4600	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Acetophenone	ND		35000	4800	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Anthracene	ND		35000	8700	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Atrazine	ND		35000	12000	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Benzaldehyde	ND		35000	28000	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Benzo[a]anthracene	ND		35000	3500	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Benzo[a]pyrene	ND		35000	5200	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Benzo[b]fluoranthene	ND		35000	5600	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Benzo[g,h,i]perylene	ND		35000	3700	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Benzo[k]fluoranthene	ND		35000	4600	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Bis(2-chloroethoxy)methane	ND		35000	7500	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Bis(2-chloroethyl)ether	ND		35000	4600	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Bis(2-ethylhexyl) phthalate	ND		35000	12000	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Butyl benzyl phthalate	ND		35000	5800	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Caprolactam	ND		35000	11000	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Carbazole	ND		35000	4200	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Chrysene	ND		35000	7900	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Dibenz(a,h)anthracene	ND		35000	6200	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Di-n-butyl phthalate	ND		35000	6000	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Di-n-octyl phthalate	ND		35000	4200	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Dibenzofuran	ND		35000	4200	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Diethyl phthalate	ND		35000	4600	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20
Dimethyl phthalate	ND		35000	4200	ug/Kg	*	02/12/19 14:59	02/13/19 18:37	20

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-3 (0 - 2)

Lab Sample ID: 480-148884-5

Date Collected: 02/07/19 08:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 94.0

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		35000	3700	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
Fluorene	ND		35000	4200	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
Hexachlorobenzene	ND		35000	4800	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
Hexachlorobutadiene	ND		35000	5200	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
Hexachlorocyclopentadiene	ND		35000	4800	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
Hexachloroethane	ND		35000	4600	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
Indeno[1,2,3-cd]pyrene	ND		35000	4400	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
Isophorone	ND		35000	7500	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
N-Nitrosodi-n-propylamine	ND		35000	6000	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
N-Nitrosodiphenylamine	ND		35000	29000	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
Naphthalene	ND		35000	4600	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
Nitrobenzene	ND		35000	3900	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
Pentachlorophenol	ND		68000	35000	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
Phenanthrene	ND		35000	5200	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
Phenol	ND		35000	5400	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
Pyrene	ND		35000	4200	ug/Kg	☼	02/12/19 14:59	02/13/19 18:37	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	0	X	53 - 120				02/12/19 14:59	02/13/19 18:37	20
Phenol-d5 (Surr)	0	X	54 - 120				02/12/19 14:59	02/13/19 18:37	20
p-Terphenyl-d14 (Surr)	0	X	65 - 121				02/12/19 14:59	02/13/19 18:37	20
2,4,6-Tribromophenol (Surr)	0	X	54 - 120				02/12/19 14:59	02/13/19 18:37	20
2-Fluorobiphenyl	0	X	60 - 120				02/12/19 14:59	02/13/19 18:37	20
2-Fluorophenol (Surr)	0	X	52 - 120				02/12/19 14:59	02/13/19 18:37	20

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	2260		10.5	4.6	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Antimony	ND		15.7	0.42	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Arsenic	1.3	J	2.1	0.42	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Barium	21.4		0.52	0.12	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Beryllium	0.12	J	0.21	0.029	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Cadmium	0.15	J	0.21	0.031	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Calcium	165000	B	105	6.9	mg/Kg	☼	02/13/19 07:47	02/14/19 11:27	2
Chromium	8.3		0.52	0.21	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Cobalt	2.1		0.52	0.052	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Copper	9.2		2.1	0.44	mg/Kg	☼	02/13/19 07:47	02/14/19 11:27	2
Iron	4400		10.5	3.7	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Lead	18.7		1.0	0.25	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Magnesium	17300	B	21.0	0.97	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Manganese	118	B	0.21	0.034	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Nickel	8.9		5.2	0.24	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Potassium	885		31.5	21.0	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Selenium	ND		4.2	0.42	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Silver	ND		0.63	0.21	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Sodium	260	B	147	13.6	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Thallium	ND		6.3	0.31	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Vanadium	31.3		0.52	0.12	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1
Zinc	24.0		2.1	0.67	mg/Kg	☼	02/13/19 07:47	02/13/19 20:30	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-3 (0 - 2)

Lab Sample ID: 480-148884-5

Date Collected: 02/07/19 08:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 94.0

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.041		0.021	0.0084	mg/Kg	☼	02/14/19 12:00	02/14/19 14:16	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-3 (6 - 12)

Lab Sample ID: 480-148884-6

Date Collected: 02/07/19 08:50

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 92.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	H	4.0	0.29	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
1,1,1,2,2-Tetrachloroethane	ND	H	4.0	0.66	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
1,1,2-Trichloroethane	ND	H	4.0	0.53	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	H	4.0	0.92	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
1,1-Dichloroethane	ND	H	4.0	0.49	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
1,1-Dichloroethene	ND	H	4.0	0.49	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
1,2,4-Trichlorobenzene	ND	H	4.0	0.25	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
1,2-Dibromo-3-Chloropropane	ND	H	4.0	2.0	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
1,2-Dichlorobenzene	ND	H	4.0	0.32	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
1,2-Dichloroethane	ND	H	4.0	0.20	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
1,2-Dichloropropane	ND	H	4.0	2.0	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
1,3-Dichlorobenzene	ND	H	4.0	0.21	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
1,4-Dichlorobenzene	ND	H	4.0	0.57	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
2-Butanone (MEK)	ND	H	20	1.5	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
2-Hexanone	ND	H	20	2.0	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
4-Methyl-2-pentanone (MIBK)	ND	H	20	1.3	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Acetone	13	J H	20	3.4	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Benzene	ND	H	4.0	0.20	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Bromodichloromethane	ND	H	4.0	0.54	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Bromoform	ND	H	4.0	2.0	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Bromomethane	ND	H	4.0	0.36	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Carbon disulfide	ND	H	4.0	2.0	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Carbon tetrachloride	ND	H	4.0	0.39	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Chlorobenzene	ND	H	4.0	0.53	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Dibromochloromethane	ND	H	4.0	0.52	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Chloroethane	ND	H	4.0	0.91	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Chloroform	ND	H	4.0	0.25	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Chloromethane	ND	H	4.0	0.24	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
cis-1,2-Dichloroethene	ND	H	4.0	0.52	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
cis-1,3-Dichloropropene	ND	H	4.0	0.58	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Cyclohexane	ND	H	4.0	0.57	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Dichlorodifluoromethane	ND	H	4.0	0.33	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Ethylbenzene	ND	H	4.0	0.28	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
1,2-Dibromoethane	ND	H	4.0	0.52	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Isopropylbenzene	ND	H	4.0	0.61	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Methyl acetate	ND	H	20	2.4	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Methyl tert-butyl ether	ND	H	4.0	0.40	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Methylcyclohexane	ND	H	4.0	0.61	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Methylene Chloride	2.3	J H B	4.0	1.9	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Styrene	ND	H	4.0	0.20	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Tetrachloroethene	ND	H	4.0	0.54	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Toluene	0.34	J H	4.0	0.31	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
trans-1,2-Dichloroethene	ND	H	4.0	0.42	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
trans-1,3-Dichloropropene	ND	H	4.0	1.8	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Trichloroethene	ND	H	4.0	0.89	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Trichlorofluoromethane	ND	H	4.0	0.38	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Vinyl chloride	ND	H	4.0	0.49	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1
Xylenes, Total	ND	H	8.1	0.68	ug/Kg	☼	02/09/19 12:30	02/12/19 15:06	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-3 (6 - 12)

Lab Sample ID: 480-148884-6

Date Collected: 02/07/19 08:50

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 92.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		71 - 125	02/09/19 12:30	02/12/19 15:06	1
1,2-Dichloroethane-d4 (Surr)	105		64 - 126	02/09/19 12:30	02/12/19 15:06	1
4-Bromofluorobenzene (Surr)	99		72 - 126	02/09/19 12:30	02/12/19 15:06	1
Dibromofluoromethane (Surr)	104		60 - 140	02/09/19 12:30	02/12/19 15:06	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		36000	5300	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
bis (2-chloroisopropyl) ether	ND		36000	7300	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
2,4,5-Trichlorophenol	ND		36000	9800	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
2,4,6-Trichlorophenol	ND		36000	7300	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
2,4-Dichlorophenol	ND		36000	3800	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
2,4-Dimethylphenol	ND		36000	8700	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
2,4-Dinitrophenol	ND		350000	170000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
2,4-Dinitrotoluene	ND		36000	7500	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
2,6-Dinitrotoluene	ND		36000	4300	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
2-Chloronaphthalene	ND		36000	6000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
2-Chlorophenol	ND		36000	6600	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
2-Methylphenol	ND		36000	4300	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
2-Methylnaphthalene	ND		36000	7300	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
2-Nitroaniline	ND		70000	5300	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
2-Nitrophenol	ND		36000	10000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
3,3'-Dichlorobenzidine	ND		70000	43000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
3-Nitroaniline	ND		70000	10000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
4,6-Dinitro-2-methylphenol	ND		70000	36000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
4-Bromophenyl phenyl ether	ND		36000	5100	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
4-Chloro-3-methylphenol	ND		36000	9000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
4-Chloroaniline	ND		36000	9000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
4-Chlorophenyl phenyl ether	ND		36000	4500	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
4-Methylphenol	ND		70000	4300	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
4-Nitroaniline	ND		70000	19000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
4-Nitrophenol	ND		70000	25000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Acenaphthene	ND		36000	5300	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Acenaphthylene	ND		36000	4700	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Acetophenone	ND		36000	4900	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Anthracene	ND		36000	9000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Atrazine	ND		36000	13000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Benzaldehyde	ND		36000	29000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Benzo[a]anthracene	ND		36000	3600	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Benzo[a]pyrene	ND		36000	5300	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Benzo[b]fluoranthene	ND		36000	5800	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Benzo[g,h,i]perylene	ND		36000	3800	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Benzo[k]fluoranthene	ND		36000	4700	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Bis(2-chloroethoxy)methane	ND		36000	7700	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Bis(2-chloroethyl)ether	ND		36000	4700	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Bis(2-ethylhexyl) phthalate	ND		36000	12000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Butyl benzyl phthalate	ND		36000	6000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Caprolactam	ND		36000	11000	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Carbazole	ND		36000	4300	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20
Chrysene	ND		36000	8100	ug/Kg	*	02/12/19 14:59	02/13/19 19:02	20

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-3 (6 - 12)

Lab Sample ID: 480-148884-6

Date Collected: 02/07/19 08:50

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 92.5

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		36000	6400	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Di-n-butyl phthalate	ND		36000	6200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Di-n-octyl phthalate	ND		36000	4300	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Dibenzofuran	ND		36000	4300	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Diethyl phthalate	ND		36000	4700	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Dimethyl phthalate	ND		36000	4300	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Fluoranthene	ND		36000	3800	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Fluorene	ND		36000	4300	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Hexachlorobenzene	ND		36000	4900	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Hexachlorobutadiene	ND		36000	5300	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Hexachlorocyclopentadiene	ND		36000	4900	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Hexachloroethane	ND		36000	4700	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Indeno[1,2,3-cd]pyrene	ND		36000	4500	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Isophorone	ND		36000	7700	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
N-Nitrosodi-n-propylamine	ND		36000	6200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
N-Nitrosodiphenylamine	ND		36000	29000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Naphthalene	ND		36000	4700	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Nitrobenzene	ND		36000	4100	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Pentachlorophenol	ND		70000	36000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Phenanthrene	ND		36000	5300	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Phenol	ND		36000	5500	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Pyrene	ND		36000	4300	ug/Kg	☼	02/12/19 14:59	02/13/19 19:02	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	0	X	53 - 120				02/12/19 14:59	02/13/19 19:02	20
Phenol-d5 (Surr)	0	X	54 - 120				02/12/19 14:59	02/13/19 19:02	20
p-Terphenyl-d14 (Surr)	0	X	65 - 121				02/12/19 14:59	02/13/19 19:02	20
2,4,6-Tribromophenol (Surr)	0	X	54 - 120				02/12/19 14:59	02/13/19 19:02	20
2-Fluorobiphenyl	0	X	60 - 120				02/12/19 14:59	02/13/19 19:02	20
2-Fluorophenol (Surr)	0	X	52 - 120				02/12/19 14:59	02/13/19 19:02	20

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		89	17	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
4,4'-DDE	ND		89	19	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
4,4'-DDT	ND		89	21	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
Aldrin	ND		89	22	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
alpha-BHC	ND		89	16	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
cis-Chlordane	ND		89	44	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
beta-BHC	ND		89	16	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
delta-BHC	ND		89	16	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
Dieldrin	ND		89	21	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
Endosulfan I	ND		89	17	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
Endosulfan II	ND		89	16	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
Endosulfan sulfate	ND		89	16	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
Endrin	ND		89	18	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
Endrin aldehyde	ND		89	23	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
Endrin ketone	ND		89	22	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
gamma-BHC (Lindane)	ND		89	16	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
trans-Chlordane	ND		89	28	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-3 (6 - 12)

Lab Sample ID: 480-148884-6

Date Collected: 02/07/19 08:50

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 92.5

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	ND		89	19	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
Heptachlor epoxide	ND		89	23	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
Methoxychlor	ND		89	18	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
Toxaphene	ND		890	510	ug/Kg	☼	02/12/19 14:56	02/14/19 11:57	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	0	X	45 - 120				02/12/19 14:56	02/14/19 11:57	50
Tetrachloro-m-xylene	0	X	30 - 124				02/12/19 14:56	02/14/19 11:57	50

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.21	0.041	mg/Kg	☼	02/13/19 14:56	02/14/19 13:17	1
PCB-1221	ND		0.21	0.041	mg/Kg	☼	02/13/19 14:56	02/14/19 13:17	1
PCB-1232	ND		0.21	0.041	mg/Kg	☼	02/13/19 14:56	02/14/19 13:17	1
PCB-1242	ND		0.21	0.041	mg/Kg	☼	02/13/19 14:56	02/14/19 13:17	1
PCB-1248	ND		0.21	0.041	mg/Kg	☼	02/13/19 14:56	02/14/19 13:17	1
PCB-1254	ND		0.21	0.097	mg/Kg	☼	02/13/19 14:56	02/14/19 13:17	1
PCB-1260	ND		0.21	0.097	mg/Kg	☼	02/13/19 14:56	02/14/19 13:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	96		60 - 154				02/13/19 14:56	02/14/19 13:17	1
DCB Decachlorobiphenyl	86		65 - 174				02/13/19 14:56	02/14/19 13:17	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		18	5.6	ug/Kg	☼	02/11/19 14:31	02/15/19 09:28	1
2,4-D	ND		18	11	ug/Kg	☼	02/11/19 14:31	02/15/19 09:28	1
Silvex (2,4,5-TP)	ND		18	6.3	ug/Kg	☼	02/11/19 14:31	02/15/19 09:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	58		28 - 129				02/11/19 14:31	02/15/19 09:28	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	3510		10.7	4.7	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Antimony	ND		16.1	0.43	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Arsenic	3.5		2.1	0.43	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Barium	45.3		0.54	0.12	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Beryllium	0.18	J	0.21	0.030	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Cadmium	0.19	J	0.21	0.032	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Calcium	203000	B	268	17.7	mg/Kg	☼	02/13/19 07:47	02/14/19 11:31	5
Chromium	8.6		0.54	0.21	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Cobalt	3.4		0.54	0.054	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Copper	12.0		5.4	1.1	mg/Kg	☼	02/13/19 07:47	02/14/19 11:31	5
Iron	6870		10.7	3.8	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Lead	22.8		1.1	0.26	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Magnesium	24500	B	21.5	0.99	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Manganese	206	B	0.21	0.034	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Nickel	9.5		5.4	0.25	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Potassium	1360		32.2	21.5	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Selenium	ND		4.3	0.43	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-3 (6 - 12)

Lab Sample ID: 480-148884-6

Date Collected: 02/07/19 08:50

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 92.5

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.64	0.21	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Sodium	238	B	150	14.0	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Thallium	ND		6.4	0.32	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Vanadium	13.7		0.54	0.12	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1
Zinc	24.7		2.1	0.69	mg/Kg	☼	02/13/19 07:47	02/13/19 20:34	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12		0.022	0.0089	mg/Kg	☼	02/14/19 12:00	02/14/19 14:17	1



Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-4 (0 - 2)

Lab Sample ID: 480-148884-7

Date Collected: 02/07/19 09:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 95.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		35000	5200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
bis (2-chloroisopropyl) ether	ND		35000	7100	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
2,4,5-Trichlorophenol	ND		35000	9600	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
2,4,6-Trichlorophenol	ND		35000	7100	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
2,4-Dichlorophenol	ND		35000	3800	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
2,4-Dimethylphenol	ND		35000	8500	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
2,4-Dinitrophenol	ND		350000	160000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
2,4-Dinitrotoluene	ND		35000	7300	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
2,6-Dinitrotoluene	ND		35000	4200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
2-Chloronaphthalene	ND		35000	5800	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
2-Chlorophenol	ND		35000	6500	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
2-Methylphenol	ND		35000	4200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
2-Methylnaphthalene	ND		35000	7100	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
2-Nitroaniline	ND		69000	5200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
2-Nitrophenol	ND		35000	10000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
3,3'-Dichlorobenzidine	ND		69000	42000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
3-Nitroaniline	ND		69000	9800	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
4,6-Dinitro-2-methylphenol	ND		69000	35000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
4-Bromophenyl phenyl ether	ND		35000	5000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
4-Chloro-3-methylphenol	ND		35000	8800	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
4-Chloroaniline	ND		35000	8800	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
4-Chlorophenyl phenyl ether	ND		35000	4400	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
4-Methylphenol	ND		69000	4200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
4-Nitroaniline	ND		69000	19000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
4-Nitrophenol	ND		69000	25000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Acenaphthene	ND		35000	5200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Acenaphthylene	ND		35000	4600	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Acetophenone	ND		35000	4800	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Anthracene	ND		35000	8800	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Atrazine	ND		35000	12000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Benzaldehyde	ND		35000	28000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Benzo[a]anthracene	ND		35000	3500	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Benzo[a]pyrene	ND		35000	5200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Benzo[b]fluoranthene	ND		35000	5600	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Benzo[g,h,i]perylene	ND		35000	3800	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Benzo[k]fluoranthene	ND		35000	4600	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Bis(2-chloroethoxy)methane	ND		35000	7500	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Bis(2-chloroethyl)ether	ND		35000	4600	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Bis(2-ethylhexyl) phthalate	ND		35000	12000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Butyl benzyl phthalate	ND		35000	5800	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Caprolactam	ND		35000	11000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Carbazole	ND		35000	4200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Chrysene	ND		35000	7900	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Dibenz(a,h)anthracene	ND		35000	6300	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Di-n-butyl phthalate	ND		35000	6000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Di-n-octyl phthalate	ND		35000	4200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Dibenzofuran	ND		35000	4200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Diethyl phthalate	ND		35000	4600	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Dimethyl phthalate	ND		35000	4200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-4 (0 - 2)

Lab Sample ID: 480-148884-7

Date Collected: 02/07/19 09:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 95.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		35000	3800	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Fluorene	ND		35000	4200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Hexachlorobenzene	ND		35000	4800	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Hexachlorobutadiene	ND		35000	5200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Hexachlorocyclopentadiene	ND		35000	4800	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Hexachloroethane	ND		35000	4600	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Indeno[1,2,3-cd]pyrene	ND		35000	4400	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Isophorone	ND		35000	7500	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
N-Nitrosodi-n-propylamine	ND		35000	6000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
N-Nitrosodiphenylamine	ND		35000	29000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Naphthalene	ND		35000	4600	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Nitrobenzene	ND		35000	4000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Pentachlorophenol	ND		69000	35000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Phenanthrene	ND		35000	5200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Phenol	ND		35000	5400	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Pyrene	ND		35000	4200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:27	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	0	X	53 - 120				02/12/19 14:59	02/13/19 19:27	20
Phenol-d5 (Surr)	0	X	54 - 120				02/12/19 14:59	02/13/19 19:27	20
p-Terphenyl-d14 (Surr)	0	X	65 - 121				02/12/19 14:59	02/13/19 19:27	20
2,4,6-Tribromophenol (Surr)	0	X	54 - 120				02/12/19 14:59	02/13/19 19:27	20
2-Fluorobiphenyl	0	X	60 - 120				02/12/19 14:59	02/13/19 19:27	20
2-Fluorophenol (Surr)	0	X	52 - 120				02/12/19 14:59	02/13/19 19:27	20

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	1940		10.3	4.5	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Antimony	0.64	J	15.4	0.41	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Arsenic	1.9	J	2.1	0.41	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Barium	15.6		0.51	0.11	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Beryllium	0.14	J	0.21	0.029	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Cadmium	0.11	J	0.21	0.031	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Calcium	193000	B	257	17.0	mg/Kg	☼	02/13/19 07:47	02/14/19 11:35	5
Chromium	6.3		0.51	0.21	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Cobalt	3.0		0.51	0.051	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Copper	8.9		5.1	1.1	mg/Kg	☼	02/13/19 07:47	02/14/19 11:35	5
Iron	4060		10.3	3.6	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Lead	14.1		1.0	0.25	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Magnesium	8110	B	20.6	0.95	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Manganese	160	B	0.21	0.033	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Nickel	7.3		5.1	0.24	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Potassium	1010		30.8	20.6	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Selenium	ND		4.1	0.41	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Silver	ND		0.62	0.21	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Sodium	374	B	144	13.4	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Thallium	ND		6.2	0.31	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Vanadium	10.5		0.51	0.11	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1
Zinc	22.0		2.1	0.66	mg/Kg	☼	02/13/19 07:47	02/13/19 20:37	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-4 (0 - 2)

Lab Sample ID: 480-148884-7

Date Collected: 02/07/19 09:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 95.3

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.014	J	0.020	0.0082	mg/Kg	☼	02/14/19 12:00	02/14/19 14:18	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-4 (6 - 12)

Lab Sample ID: 480-148884-8

Date Collected: 02/07/19 09:50

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 92.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	H	5.0	0.36	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
1,1,1,2,2-Tetrachloroethane	ND	H	5.0	0.81	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
1,1,2-Trichloroethane	ND	H	5.0	0.65	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	H	5.0	1.1	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
1,1-Dichloroethane	ND	H	5.0	0.61	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
1,1-Dichloroethene	ND	H	5.0	0.61	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
1,2,4-Trichlorobenzene	ND	H	5.0	0.31	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
1,2-Dibromo-3-Chloropropane	ND	H	5.0	2.5	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
1,2-Dichlorobenzene	ND	H	5.0	0.39	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
1,2-Dichloroethane	ND	H	5.0	0.25	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
1,2-Dichloropropane	ND	H	5.0	2.5	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
1,3-Dichlorobenzene	ND	H	5.0	0.26	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
1,4-Dichlorobenzene	ND	H	5.0	0.70	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
2-Butanone (MEK)	ND	H	25	1.8	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
2-Hexanone	ND	H	25	2.5	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
4-Methyl-2-pentanone (MIBK)	ND	H	25	1.6	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Acetone	56	H B	25	4.2	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Benzene	5.2	H	5.0	0.25	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Bromodichloromethane	ND	H	5.0	0.67	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Bromoform	ND	H	5.0	2.5	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Bromomethane	ND	H	5.0	0.45	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Carbon disulfide	ND	H	5.0	2.5	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Carbon tetrachloride	ND	H	5.0	0.49	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Chlorobenzene	ND	H	5.0	0.66	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Dibromochloromethane	ND	H	5.0	0.64	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Chloroethane	ND	H *	5.0	1.1	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Chloroform	ND	H	5.0	0.31	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Chloromethane	ND	H	5.0	0.30	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
cis-1,2-Dichloroethene	ND	H	5.0	0.64	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
cis-1,3-Dichloropropene	ND	H	5.0	0.72	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Cyclohexane	ND	H	5.0	0.70	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Dichlorodifluoromethane	ND	H	5.0	0.41	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Ethylbenzene	ND	H	5.0	0.35	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
1,2-Dibromoethane	ND	H	5.0	0.64	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Isopropylbenzene	ND	H	5.0	0.76	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Methyl acetate	ND	H	25	3.0	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Methyl tert-butyl ether	ND	H	5.0	0.49	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Methylcyclohexane	35	H	5.0	0.76	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Methylene Chloride	ND	H	5.0	2.3	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Styrene	ND	H	5.0	0.25	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Tetrachloroethene	ND	H	5.0	0.67	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Toluene	0.67	J H	5.0	0.38	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
trans-1,2-Dichloroethene	ND	H	5.0	0.52	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
trans-1,3-Dichloropropene	ND	H	5.0	2.2	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Trichloroethene	ND	H	5.0	1.1	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Trichlorofluoromethane	ND	H	5.0	0.47	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Vinyl chloride	ND	H	5.0	0.61	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1
Xylenes, Total	ND	H	10	0.84	ug/Kg	☼	02/09/19 12:30	02/12/19 02:08	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-4 (6 - 12)

Lab Sample ID: 480-148884-8

Date Collected: 02/07/19 09:50

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 92.6

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	102		71 - 125	02/09/19 12:30	02/12/19 02:08	1
1,2-Dichloroethane-d4 (Surr)	108		64 - 126	02/09/19 12:30	02/12/19 02:08	1
4-Bromofluorobenzene (Surr)	96		72 - 126	02/09/19 12:30	02/12/19 02:08	1
Dibromofluoromethane (Surr)	99		60 - 140	02/09/19 12:30	02/12/19 02:08	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		18000	2700	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
bis (2-chloroisopropyl) ether	ND		18000	3700	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
2,4,5-Trichlorophenol	ND		18000	5000	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
2,4,6-Trichlorophenol	ND		18000	3700	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
2,4-Dichlorophenol	ND		18000	1900	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
2,4-Dimethylphenol	ND		18000	4400	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
2,4-Dinitrophenol	ND		180000	85000	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
2,4-Dinitrotoluene	ND		18000	3800	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
2,6-Dinitrotoluene	ND		18000	2200	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
2-Chloronaphthalene	ND		18000	3000	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
2-Chlorophenol	ND		18000	3300	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
2-Methylphenol	ND		18000	2200	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
2-Methylnaphthalene	ND		18000	3700	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
2-Nitroaniline	ND		36000	2700	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
2-Nitrophenol	ND		18000	5200	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
3,3'-Dichlorobenzidine	ND		36000	22000	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
3-Nitroaniline	ND		36000	5100	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
4,6-Dinitro-2-methylphenol	ND		36000	18000	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
4-Bromophenyl phenyl ether	ND		18000	2600	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
4-Chloro-3-methylphenol	ND		18000	4500	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
4-Chloroaniline	ND		18000	4500	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
4-Chlorophenyl phenyl ether	ND		18000	2300	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
4-Methylphenol	ND		36000	2200	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
4-Nitroaniline	ND		36000	9600	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
4-Nitrophenol	ND		36000	13000	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Acenaphthene	ND		18000	2700	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Acenaphthylene	ND		18000	2400	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Acetophenone	ND		18000	2500	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Anthracene	5500	J	18000	4500	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Atrazine	ND		18000	6400	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Benzaldehyde	ND		18000	15000	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Benzo[a]anthracene	8200	J	18000	1800	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Benzo[a]pyrene	7000	J	18000	2700	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Benzo[b]fluoranthene	8200	J	18000	2900	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Benzo[g,h,i]perylene	3900	J	18000	1900	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Benzo[k]fluoranthene	3300	J	18000	2400	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Bis(2-chloroethoxy)methane	ND		18000	3900	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Bis(2-chloroethyl)ether	ND		18000	2400	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Bis(2-ethylhexyl) phthalate	ND		18000	6300	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Butyl benzyl phthalate	ND		18000	3000	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Caprolactam	ND		18000	5500	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Carbazole	ND		18000	2200	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10
Chrysene	5300	J	18000	4100	ug/Kg	*	02/12/19 14:59	02/13/19 19:52	10

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-4 (6 - 12)

Lab Sample ID: 480-148884-8

Date Collected: 02/07/19 09:50

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 92.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		18000	3200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Di-n-butyl phthalate	ND		18000	3100	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Di-n-octyl phthalate	ND		18000	2200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Dibenzofuran	ND		18000	2200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Diethyl phthalate	ND		18000	2400	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Dimethyl phthalate	ND		18000	2200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Fluoranthene	20000		18000	1900	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Fluorene	2800	J	18000	2200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Hexachlorobenzene	ND		18000	2500	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Hexachlorobutadiene	ND		18000	2700	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Hexachlorocyclopentadiene	ND		18000	2500	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Hexachloroethane	ND		18000	2400	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Indeno[1,2,3-cd]pyrene	3700	J	18000	2300	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Isophorone	ND		18000	3900	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
N-Nitrosodi-n-propylamine	ND		18000	3100	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
N-Nitrosodiphenylamine	ND		18000	15000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Naphthalene	ND		18000	2400	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Nitrobenzene	ND		18000	2100	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Pentachlorophenol	ND		36000	18000	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Phenanthrene	19000		18000	2700	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Phenol	ND		18000	2800	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Pyrene	15000	J	18000	2200	ug/Kg	☼	02/12/19 14:59	02/13/19 19:52	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	240	X	53 - 120				02/12/19 14:59	02/13/19 19:52	10
Phenol-d5 (Surr)	79		54 - 120				02/12/19 14:59	02/13/19 19:52	10
p-Terphenyl-d14 (Surr)	0	X	65 - 121				02/12/19 14:59	02/13/19 19:52	10
2,4,6-Tribromophenol (Surr)	0	X	54 - 120				02/12/19 14:59	02/13/19 19:52	10
2-Fluorobiphenyl	100		60 - 120				02/12/19 14:59	02/13/19 19:52	10
2-Fluorophenol (Surr)	150	X	52 - 120				02/12/19 14:59	02/13/19 19:52	10

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		18	3.5	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
4,4'-DDE	ND		18	3.7	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
4,4'-DDT	9.4	J	18	4.2	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
Aldrin	ND		18	4.4	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
alpha-BHC	ND		18	3.2	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
cis-Chlordane	ND		18	8.9	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
beta-BHC	ND		18	3.2	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
delta-BHC	ND		18	3.3	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
Dieldrin	ND		18	4.3	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
Endosulfan I	ND		18	3.4	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
Endosulfan II	ND		18	3.2	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
Endosulfan sulfate	ND		18	3.3	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
Endrin	ND		18	3.5	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
Endrin aldehyde	ND		18	4.6	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
Endrin ketone	ND		18	4.4	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
gamma-BHC (Lindane)	ND		18	3.3	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
trans-Chlordane	ND		18	5.7	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-4 (6 - 12)

Lab Sample ID: 480-148884-8

Date Collected: 02/07/19 09:50

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 92.6

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	ND		18	3.9	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
Heptachlor epoxide	ND		18	4.6	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
Methoxychlor	ND		18	3.6	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
Toxaphene	ND		180	100	ug/Kg	☼	02/12/19 14:56	02/14/19 12:17	10
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	134	X	45 - 120				02/12/19 14:56	02/14/19 12:17	10
Tetrachloro-m-xylene	66		30 - 124				02/12/19 14:56	02/14/19 12:17	10

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.44	0.086	mg/Kg	☼	02/13/19 14:56	02/14/19 13:33	1
PCB-1221	ND		0.44	0.086	mg/Kg	☼	02/13/19 14:56	02/14/19 13:33	1
PCB-1232	ND		0.44	0.086	mg/Kg	☼	02/13/19 14:56	02/14/19 13:33	1
PCB-1242	ND		0.44	0.086	mg/Kg	☼	02/13/19 14:56	02/14/19 13:33	1
PCB-1248	ND		0.44	0.086	mg/Kg	☼	02/13/19 14:56	02/14/19 13:33	1
PCB-1254	ND		0.44	0.21	mg/Kg	☼	02/13/19 14:56	02/14/19 13:33	1
PCB-1260	ND		0.44	0.21	mg/Kg	☼	02/13/19 14:56	02/14/19 13:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	111		60 - 154				02/13/19 14:56	02/14/19 13:33	1
DCB Decachlorobiphenyl	108		65 - 174				02/13/19 14:56	02/14/19 13:33	1

Method: 8151A - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		18	5.8	ug/Kg	☼	02/11/19 14:31	02/15/19 09:58	1
2,4-D	ND		18	11	ug/Kg	☼	02/11/19 14:31	02/15/19 09:58	1
Silvex (2,4,5-TP)	ND		18	6.5	ug/Kg	☼	02/11/19 14:31	02/15/19 09:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	80		28 - 129				02/11/19 14:31	02/15/19 09:58	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6040		10.9	4.8	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Antimony	1.1	J	16.3	0.43	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Arsenic	4.6		2.2	0.43	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Barium	117		0.54	0.12	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Beryllium	0.37		0.22	0.030	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Cadmium	0.32		0.22	0.033	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Calcium	61600	B	54.4	3.6	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Chromium	11.4		0.54	0.22	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Cobalt	5.4		0.54	0.054	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Copper	25.4		1.1	0.23	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Iron	18200		10.9	3.8	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Lead	854		1.1	0.26	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Magnesium	16500	B	21.7	1.0	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Manganese	264	B	0.22	0.035	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Nickel	16.5		5.4	0.25	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Potassium	1760		32.6	21.7	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Selenium	ND		4.3	0.43	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-4 (6 - 12)

Lab Sample ID: 480-148884-8

Date Collected: 02/07/19 09:50

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 92.6

Method: 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.65	0.22	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Sodium	640	B	152	14.1	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Thallium	ND		6.5	0.33	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Vanadium	19.6		0.54	0.12	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1
Zinc	243		2.2	0.70	mg/Kg	☼	02/13/19 07:47	02/13/19 20:41	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.14		0.020	0.0081	mg/Kg	☼	02/14/19 12:00	02/14/19 14:19	1



Surrogate Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (71-125)	DCA (64-126)	BFB (72-126)	DBFM (60-140)
480-148884-2	SS-1 (6 - 12)	101	104	98	102
480-148884-4	SS-2 (6 -1 2)	104	105	94	105
480-148884-6	SS-3 (6 - 12)	99	105	99	104
480-148884-8	SS-4 (6 - 12)	102	108	96	99
LCS 480-458491/1-A	Lab Control Sample	101	100	102	105
LCS 480-458613/1-A	Lab Control Sample	101	101	102	105
LCS 480-458673/1-A	Lab Control Sample	100	99	102	104
MB 480-458491/2-A	Method Blank	101	102	99	104
MB 480-458613/2-A	Method Blank	101	103	99	105
MB 480-458673/2-A	Method Blank	99	100	97	104

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (53-120)	PHL (54-120)	TPHd14 (65-121)	TBP (54-120)	FBP (60-120)	2FP (52-120)
480-148884-1	SS-1 (0 - 2)	0 X	0 X	0 X	0 X	0 X	0 X
480-148884-2	SS-1 (6 - 12)	118	91	105	112	94	99
480-148884-3	SS-2 (0 - 2)	109	91	108	99	101	100
480-148884-4	SS-2 (6 -1 2)	105	90	109	98	94	93
480-148884-5	SS-3 (0 - 2)	0 X	0 X	0 X	0 X	0 X	0 X
480-148884-6	SS-3 (6 - 12)	0 X	0 X	0 X	0 X	0 X	0 X
480-148884-7	SS-4 (0 - 2)	0 X	0 X	0 X	0 X	0 X	0 X
480-148884-8	SS-4 (6 - 12)	240 X	79	0 X	0 X	100	150 X
LCS 480-458780/2-A	Lab Control Sample	84	83	120	102	90	77
MB 480-458780/1-A	Method Blank	81	80	118	83	87	77

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCBP2 (45-120)	TCX2 (30-124)
480-148884-2	SS-1 (6 - 12)	0 X	0 X
480-148884-4	SS-2 (6 -1 2)	0 X	0 X

TestAmerica Buffalo

Surrogate Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCBP2 (45-120)	TCX2 (30-124)
480-148884-6	SS-3 (6 - 12)	0 X	0 X
480-148884-8	SS-4 (6 - 12)	134 X	66
LCS 480-458779/2-A	Lab Control Sample	75	42
MB 480-458779/1-A	Method Blank	76	38

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2 (60-154)	DCBP2 (65-174)
480-148884-2	SS-1 (6 - 12)	108	99
480-148884-4	SS-2 (6 - 12)	91	89
480-148884-6	SS-3 (6 - 12)	96	86
480-148884-8	SS-4 (6 - 12)	111	108
LCS 480-458979/2-A	Lab Control Sample	127	121
MB 480-458979/1-A	Method Blank	111	113

Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA2 (28-129)
480-148884-2	SS-1 (6 - 12)	82
480-148884-4	SS-2 (6 - 12)	58
480-148884-6	SS-3 (6 - 12)	58
480-148884-8	SS-4 (6 - 12)	80

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA1 (28-129)
LCS 480-458569/2-A	Lab Control Sample	62
MB 480-458569/1-A	Method Blank	59

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-458491/2-A

Matrix: Solid

Analysis Batch: 458475

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458491

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
2-Hexanone	ND		25	2.5	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Acetone	ND		25	4.2	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Benzene	ND		5.0	0.25	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Bromoform	ND		5.0	2.5	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Bromomethane	ND		5.0	0.45	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Chloroethane	ND		5.0	1.1	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Chloroform	ND		5.0	0.31	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Chloromethane	ND		5.0	0.30	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Cyclohexane	ND		5.0	0.70	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Methyl acetate	ND		25	3.0	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Styrene	ND		5.0	0.25	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Toluene	ND		5.0	0.38	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Trichloroethene	ND		5.0	1.1	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		02/11/19 09:44	02/11/19 10:58	1
Xylenes, Total	ND		10	0.84	ug/Kg		02/11/19 09:44	02/11/19 10:58	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	101		71 - 125	02/11/19 09:44	02/11/19 10:58	1
1,2-Dichloroethane-d4 (Surr)	102		64 - 126	02/11/19 09:44	02/11/19 10:58	1
4-Bromofluorobenzene (Surr)	99		72 - 126	02/11/19 09:44	02/11/19 10:58	1
Dibromofluoromethane (Surr)	104		60 - 140	02/11/19 09:44	02/11/19 10:58	1

Lab Sample ID: LCS 480-458491/1-A

Matrix: Solid

Analysis Batch: 458475

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 458491

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,1,2,2-Tetrachloroethane	50.0	50.6		ug/Kg		101	80 - 120	
1,1,2-Trichloroethane	50.0	51.9		ug/Kg		104	78 - 122	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	52.8		ug/Kg		106	60 - 140	
1,1-Dichloroethane	50.0	52.5		ug/Kg		105	73 - 126	
1,1-Dichloroethene	50.0	51.8		ug/Kg		104	59 - 125	
1,2,4-Trichlorobenzene	50.0	48.7		ug/Kg		97	64 - 120	
1,2-Dibromo-3-Chloropropane	50.0	46.5		ug/Kg		93	63 - 124	
1,2-Dichlorobenzene	50.0	50.4		ug/Kg		101	75 - 120	
1,2-Dichloroethane	50.0	53.4		ug/Kg		107	77 - 122	
1,2-Dichloropropane	50.0	51.1		ug/Kg		102	75 - 124	
1,3-Dichlorobenzene	50.0	51.1		ug/Kg		102	74 - 120	
1,4-Dichlorobenzene	50.0	50.5		ug/Kg		101	73 - 120	
2-Butanone (MEK)	250	264		ug/Kg		106	70 - 134	
2-Hexanone	250	257		ug/Kg		103	59 - 130	
4-Methyl-2-pentanone (MIBK)	250	258		ug/Kg		103	65 - 133	
Acetone	250	257		ug/Kg		103	61 - 137	
Benzene	50.0	52.9		ug/Kg		106	79 - 127	
Bromodichloromethane	50.0	53.3		ug/Kg		107	80 - 122	
Bromoform	50.0	55.6		ug/Kg		111	68 - 126	
Bromomethane	50.0	57.2		ug/Kg		114	37 - 149	
Carbon disulfide	50.0	49.5		ug/Kg		99	64 - 131	
Carbon tetrachloride	50.0	55.4		ug/Kg		111	75 - 135	
Chlorobenzene	50.0	52.3		ug/Kg		105	76 - 124	
Dibromochloromethane	50.0	55.4		ug/Kg		111	76 - 125	
Chloroethane	50.0	47.7		ug/Kg		95	69 - 135	
Chloroform	50.0	53.9		ug/Kg		108	80 - 120	
Chloromethane	50.0	56.4		ug/Kg		113	63 - 127	
cis-1,2-Dichloroethene	50.0	52.9		ug/Kg		106	81 - 120	
cis-1,3-Dichloropropene	50.0	52.5		ug/Kg		105	80 - 120	
Cyclohexane	50.0	47.3		ug/Kg		95	65 - 120	
Dichlorodifluoromethane	50.0	56.8		ug/Kg		114	57 - 142	
Ethylbenzene	50.0	51.4		ug/Kg		103	80 - 120	
1,2-Dibromoethane	50.0	53.9		ug/Kg		108	78 - 120	
Isopropylbenzene	50.0	49.6		ug/Kg		99	72 - 120	
Methyl acetate	100	108		ug/Kg		108	55 - 136	
Methyl tert-butyl ether	50.0	54.0		ug/Kg		108	63 - 125	
Methylcyclohexane	50.0	49.8		ug/Kg		100	60 - 140	
Methylene Chloride	50.0	48.3		ug/Kg		97	61 - 127	
Styrene	50.0	50.2		ug/Kg		100	80 - 120	
Tetrachloroethene	50.0	53.2		ug/Kg		106	74 - 122	
Toluene	50.0	51.4		ug/Kg		103	74 - 128	
trans-1,2-Dichloroethene	50.0	53.8		ug/Kg		108	78 - 126	

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-458491/1-A

Matrix: Solid

Analysis Batch: 458475

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 458491

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	50.0	52.3		ug/Kg		105	73 - 123
Trichloroethene	50.0	52.5		ug/Kg		105	77 - 129
Trichlorofluoromethane	50.0	54.5		ug/Kg		109	65 - 146
Vinyl chloride	50.0	57.0		ug/Kg		114	61 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	101		71 - 125
1,2-Dichloroethane-d4 (Surr)	100		64 - 126
4-Bromofluorobenzene (Surr)	102		72 - 126
Dibromofluoromethane (Surr)	105		60 - 140

Lab Sample ID: MB 480-458613/2-A

Matrix: Solid

Analysis Batch: 458609

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458613

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
1,2,4-Trichlorobenzene	0.307	J	5.0	0.30	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
2-Hexanone	ND		25	2.5	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Acetone	5.45	J	25	4.2	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Benzene	ND		5.0	0.25	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Bromoform	ND		5.0	2.5	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Bromomethane	ND		5.0	0.45	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Chloroethane	ND		5.0	1.1	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Chloroform	ND		5.0	0.31	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Chloromethane	ND		5.0	0.30	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Cyclohexane	ND		5.0	0.70	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		02/11/19 20:44	02/11/19 23:21	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-458613/2-A

Matrix: Solid

Analysis Batch: 458609

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458613

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		5.0	0.35	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Methyl acetate	ND		25	3.0	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Methylene Chloride	3.46	J	5.0	2.3	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Styrene	ND		5.0	0.25	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Toluene	ND		5.0	0.38	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Trichloroethene	ND		5.0	1.1	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		02/11/19 20:44	02/11/19 23:21	1
Xylenes, Total	ND		10	0.84	ug/Kg		02/11/19 20:44	02/11/19 23:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	101		71 - 125	02/11/19 20:44	02/11/19 23:21	1
1,2-Dichloroethane-d4 (Surr)	103		64 - 126	02/11/19 20:44	02/11/19 23:21	1
4-Bromofluorobenzene (Surr)	99		72 - 126	02/11/19 20:44	02/11/19 23:21	1
Dibromofluoromethane (Surr)	105		60 - 140	02/11/19 20:44	02/11/19 23:21	1

Lab Sample ID: LCS 480-458613/1-A

Matrix: Solid

Analysis Batch: 458609

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 458613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	50.2		ug/Kg		100	77 - 121
1,1,1,2-Tetrachloroethane	50.0	45.9		ug/Kg		92	80 - 120
1,1,1,2-Trichloroethane	50.0	47.1		ug/Kg		94	78 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	50.0		ug/Kg		100	60 - 140
1,1-Dichloroethane	50.0	48.0		ug/Kg		96	73 - 126
1,1-Dichloroethene	50.0	48.1		ug/Kg		96	59 - 125
1,2,4-Trichlorobenzene	50.0	47.1		ug/Kg		94	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	41.5		ug/Kg		83	63 - 124
1,2-Dichlorobenzene	50.0	46.1		ug/Kg		92	75 - 120
1,2-Dichloroethane	50.0	48.0		ug/Kg		96	77 - 122
1,2-Dichloropropane	50.0	46.4		ug/Kg		93	75 - 124
1,3-Dichlorobenzene	50.0	47.2		ug/Kg		94	74 - 120
1,4-Dichlorobenzene	50.0	46.9		ug/Kg		94	73 - 120
2-Butanone (MEK)	250	237		ug/Kg		95	70 - 134
2-Hexanone	250	230		ug/Kg		92	59 - 130
4-Methyl-2-pentanone (MIBK)	250	232		ug/Kg		93	65 - 133
Acetone	250	232		ug/Kg		93	61 - 137
Benzene	50.0	48.9		ug/Kg		98	79 - 127
Bromodichloromethane	50.0	48.1		ug/Kg		96	80 - 122

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-458613/1-A

Matrix: Solid

Analysis Batch: 458609

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 458613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoform	50.0	48.6		ug/Kg		97	68 - 126
Bromomethane	50.0	39.8		ug/Kg		80	37 - 149
Carbon disulfide	50.0	45.1		ug/Kg		90	64 - 131
Carbon tetrachloride	50.0	52.1		ug/Kg		104	75 - 135
Chlorobenzene	50.0	48.4		ug/Kg		97	76 - 124
Dibromochloromethane	50.0	49.1		ug/Kg		98	76 - 125
Chloroethane	50.0	31.5	*	ug/Kg		63	69 - 135
Chloroform	50.0	49.1		ug/Kg		98	80 - 120
Chloromethane	50.0	46.9		ug/Kg		94	63 - 127
cis-1,2-Dichloroethene	50.0	48.7		ug/Kg		97	81 - 120
cis-1,3-Dichloropropene	50.0	47.4		ug/Kg		95	80 - 120
Cyclohexane	50.0	44.3		ug/Kg		89	65 - 120
Dichlorodifluoromethane	50.0	55.6		ug/Kg		111	57 - 142
Ethylbenzene	50.0	47.6		ug/Kg		95	80 - 120
1,2-Dibromoethane	50.0	47.9		ug/Kg		96	78 - 120
Isopropylbenzene	50.0	46.1		ug/Kg		92	72 - 120
Methyl acetate	100	94.7		ug/Kg		95	55 - 136
Methyl tert-butyl ether	50.0	49.1		ug/Kg		98	63 - 125
Methylcyclohexane	50.0	47.5		ug/Kg		95	60 - 140
Methylene Chloride	50.0	45.4		ug/Kg		91	61 - 127
Styrene	50.0	45.9		ug/Kg		92	80 - 120
Tetrachloroethene	50.0	50.1		ug/Kg		100	74 - 122
Toluene	50.0	47.7		ug/Kg		95	74 - 128
trans-1,2-Dichloroethene	50.0	49.8		ug/Kg		100	78 - 126
trans-1,3-Dichloropropene	50.0	46.8		ug/Kg		94	73 - 123
Trichloroethene	50.0	49.1		ug/Kg		98	77 - 129
Trichlorofluoromethane	50.0	44.8		ug/Kg		90	65 - 146
Vinyl chloride	50.0	50.8		ug/Kg		102	61 - 133

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Toluene-d8 (Surr)	101		71 - 125
1,2-Dichloroethane-d4 (Surr)	101		64 - 126
4-Bromofluorobenzene (Surr)	102		72 - 126
Dibromofluoromethane (Surr)	105		60 - 140

Lab Sample ID: MB 480-458673/2-A

Matrix: Solid

Analysis Batch: 458665

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458673

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		02/12/19 09:22	02/12/19 13:15	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-458673/2-A

Matrix: Solid

Analysis Batch: 458665

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
2-Hexanone	ND		25	2.5	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Acetone	ND		25	4.2	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Benzene	ND		5.0	0.25	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Bromoform	ND		5.0	2.5	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Bromomethane	ND		5.0	0.45	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Chloroethane	ND		5.0	1.1	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Chloroform	ND		5.0	0.31	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Chloromethane	ND		5.0	0.30	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Cyclohexane	ND		5.0	0.70	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Methyl acetate	ND		25	3.0	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Methylene Chloride	2.53	J	5.0	2.3	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Styrene	ND		5.0	0.25	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Toluene	ND		5.0	0.38	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Trichloroethene	ND		5.0	1.1	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		02/12/19 09:22	02/12/19 13:15	1
Xylenes, Total	ND		10	0.84	ug/Kg		02/12/19 09:22	02/12/19 13:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		71 - 125	02/12/19 09:22	02/12/19 13:15	1
1,2-Dichloroethane-d4 (Surr)	100		64 - 126	02/12/19 09:22	02/12/19 13:15	1
4-Bromofluorobenzene (Surr)	97		72 - 126	02/12/19 09:22	02/12/19 13:15	1
Dibromofluoromethane (Surr)	104		60 - 140	02/12/19 09:22	02/12/19 13:15	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-458673/1-A

Matrix: Solid

Analysis Batch: 458665

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 458673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	50.0	48.2		ug/Kg		96	77 - 121
1,1,2,2-Tetrachloroethane	50.0	46.8		ug/Kg		94	80 - 120
1,1,2-Trichloroethane	50.0	48.1		ug/Kg		96	78 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.8		ug/Kg		98	60 - 140
1,1-Dichloroethane	50.0	48.0		ug/Kg		96	73 - 126
1,1-Dichloroethene	50.0	45.8		ug/Kg		92	59 - 125
1,2,4-Trichlorobenzene	50.0	44.4		ug/Kg		89	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	41.7		ug/Kg		83	63 - 124
1,2-Dichlorobenzene	50.0	46.5		ug/Kg		93	75 - 120
1,2-Dichloroethane	50.0	49.9		ug/Kg		100	77 - 122
1,2-Dichloropropane	50.0	47.7		ug/Kg		95	75 - 124
1,3-Dichlorobenzene	50.0	47.3		ug/Kg		95	74 - 120
1,4-Dichlorobenzene	50.0	47.0		ug/Kg		94	73 - 120
2-Butanone (MEK)	250	253		ug/Kg		101	70 - 134
2-Hexanone	250	240		ug/Kg		96	59 - 130
4-Methyl-2-pentanone (MIBK)	250	239		ug/Kg		96	65 - 133
Acetone	250	245		ug/Kg		98	61 - 137
Benzene	50.0	49.1		ug/Kg		98	79 - 127
Bromodichloromethane	50.0	49.4		ug/Kg		99	80 - 122
Bromoform	50.0	51.4		ug/Kg		103	68 - 126
Bromomethane	50.0	51.9		ug/Kg		104	37 - 149
Carbon disulfide	50.0	42.3		ug/Kg		85	64 - 131
Carbon tetrachloride	50.0	50.1		ug/Kg		100	75 - 135
Chlorobenzene	50.0	49.0		ug/Kg		98	76 - 124
Dibromochloromethane	50.0	50.8		ug/Kg		102	76 - 125
Chloroethane	50.0	45.1		ug/Kg		90	69 - 135
Chloroform	50.0	49.4		ug/Kg		99	80 - 120
Chloromethane	50.0	48.6		ug/Kg		97	63 - 127
cis-1,2-Dichloroethene	50.0	48.5		ug/Kg		97	81 - 120
cis-1,3-Dichloropropene	50.0	49.2		ug/Kg		98	80 - 120
Cyclohexane	50.0	43.5		ug/Kg		87	65 - 120
Dichlorodifluoromethane	50.0	50.1		ug/Kg		100	57 - 142
Ethylbenzene	50.0	47.6		ug/Kg		95	80 - 120
1,2-Dibromoethane	50.0	49.8		ug/Kg		100	78 - 120
Isopropylbenzene	50.0	44.9		ug/Kg		90	72 - 120
Methyl acetate	100	100		ug/Kg		100	55 - 136
Methyl tert-butyl ether	50.0	49.6		ug/Kg		99	63 - 125
Methylcyclohexane	50.0	46.5		ug/Kg		93	60 - 140
Methylene Chloride	50.0	44.4		ug/Kg		89	61 - 127
Styrene	50.0	46.8		ug/Kg		94	80 - 120
Tetrachloroethene	50.0	48.4		ug/Kg		97	74 - 122
Toluene	50.0	47.2		ug/Kg		94	74 - 128
trans-1,2-Dichloroethene	50.0	48.4		ug/Kg		97	78 - 126
trans-1,3-Dichloropropene	50.0	47.9		ug/Kg		96	73 - 123
Trichloroethene	50.0	48.7		ug/Kg		97	77 - 129
Trichlorofluoromethane	50.0	50.0		ug/Kg		100	65 - 146
Vinyl chloride	50.0	51.9		ug/Kg		104	61 - 133

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-458673/1-A

Matrix: Solid

Analysis Batch: 458665

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 458673

<i>Surrogate</i>	<i>LCS %Recovery</i>	<i>LCS Qualifier</i>	<i>Limits</i>
<i>Toluene-d8 (Surr)</i>	100		71 - 125
<i>1,2-Dichloroethane-d4 (Surr)</i>	99		64 - 126
<i>4-Bromofluorobenzene (Surr)</i>	102		72 - 126
<i>Dibromofluoromethane (Surr)</i>	104		60 - 140

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-458780/1-A

Matrix: Solid

Analysis Batch: 459155

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458780

<i>Analyte</i>	<i>MB Result</i>	<i>MB Qualifier</i>	<i>RL</i>	<i>MDL</i>	<i>Unit</i>	<i>D</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
Biphenyl	ND		170	24	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
bis (2-chloroisopropyl) ether	ND		170	33	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
2,4,5-Trichlorophenol	ND		170	45	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
2,4,6-Trichlorophenol	ND		170	33	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
2,4-Dimethylphenol	ND		170	40	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
2,4-Dinitrophenol	ND		1600	760	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
2,4-Dinitrotoluene	ND		170	34	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
2,6-Dinitrotoluene	ND		170	19	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
2-Chloronaphthalene	ND		170	27	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
2-Chlorophenol	ND		170	30	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
2-Methylphenol	ND		170	19	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
2-Methylnaphthalene	ND		170	33	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
2-Nitroaniline	ND		320	24	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
2-Nitrophenol	ND		170	47	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
3,3'-Dichlorobenzidine	ND		320	190	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
3-Nitroaniline	ND		320	46	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
4,6-Dinitro-2-methylphenol	ND		320	170	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
4-Bromophenyl phenyl ether	ND		170	23	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
4-Chloro-3-methylphenol	ND		170	41	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
4-Chloroaniline	ND		170	41	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
4-Chlorophenyl phenyl ether	ND		170	20	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
4-Methylphenol	ND		320	19	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
4-Nitroaniline	ND		320	87	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
4-Nitrophenol	ND		320	120	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Acenaphthene	ND		170	24	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Acenaphthylene	ND		170	21	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Acetophenone	ND		170	22	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Anthracene	ND		170	41	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Atrazine	ND		170	57	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Benzaldehyde	ND		170	130	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Benzo[a]anthracene	ND		170	17	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Benzo[a]pyrene	ND		170	24	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Benzo[b]fluoranthene	ND		170	26	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Benzo[k]fluoranthene	ND		170	21	ug/Kg		02/12/19 14:59	02/14/19 14:00	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-458780/1-A
Matrix: Solid
Analysis Batch: 459155

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458780

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bis(2-chloroethoxy)methane	ND		170	35	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Bis(2-chloroethyl)ether	ND		170	21	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Bis(2-ethylhexyl) phthalate	ND		170	56	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Butyl benzyl phthalate	ND		170	27	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Caprolactam	ND		170	50	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Carbazole	ND		170	19	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Chrysene	ND		170	37	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Dibenz(a,h)anthracene	ND		170	29	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Di-n-butyl phthalate	ND		170	28	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Di-n-octyl phthalate	ND		170	19	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Dibenzofuran	ND		170	19	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Diethyl phthalate	ND		170	21	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Dimethyl phthalate	ND		170	19	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Fluoranthene	ND		170	18	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Fluorene	ND		170	19	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Hexachlorobenzene	ND		170	22	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Hexachlorobutadiene	ND		170	24	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Hexachlorocyclopentadiene	ND		170	22	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Hexachloroethane	ND		170	21	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Indeno[1,2,3-cd]pyrene	ND		170	20	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Isophorone	ND		170	35	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
N-Nitrosodi-n-propylamine	ND		170	28	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
N-Nitrosodiphenylamine	ND		170	130	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Naphthalene	ND		170	21	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Nitrobenzene	ND		170	18	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Pentachlorophenol	ND		320	170	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Phenanthrene	ND		170	24	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Phenol	ND		170	25	ug/Kg		02/12/19 14:59	02/14/19 14:00	1
Pyrene	ND		170	19	ug/Kg		02/12/19 14:59	02/14/19 14:00	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Nitrobenzene-d5 (Surr)	81		53 - 120	02/12/19 14:59	02/14/19 14:00	1
Phenol-d5 (Surr)	80		54 - 120	02/12/19 14:59	02/14/19 14:00	1
p-Terphenyl-d14 (Surr)	118		65 - 121	02/12/19 14:59	02/14/19 14:00	1
2,4,6-Tribromophenol (Surr)	83		54 - 120	02/12/19 14:59	02/14/19 14:00	1
2-Fluorobiphenyl	87		60 - 120	02/12/19 14:59	02/14/19 14:00	1
2-Fluorophenol (Surr)	77		52 - 120	02/12/19 14:59	02/14/19 14:00	1

Lab Sample ID: LCS 480-458780/2-A
Matrix: Solid
Analysis Batch: 459155

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458780

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Biphenyl	1640	1450		ug/Kg		89	59 - 120
bis (2-chloroisopropyl) ether	1640	851		ug/Kg		52	44 - 120
2,4,5-Trichlorophenol	1640	1550		ug/Kg		95	59 - 126
2,4,6-Trichlorophenol	1640	1570		ug/Kg		96	59 - 123
2,4-Dichlorophenol	1640	1600		ug/Kg		98	61 - 120

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-458780/2-A

Matrix: Solid

Analysis Batch: 459155

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 458780

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dimethylphenol	1640	1570		ug/Kg		96	59 - 120
2,4-Dinitrophenol	3270	2870		ug/Kg		88	41 - 146
2,4-Dinitrotoluene	1640	1670		ug/Kg		102	63 - 120
2,6-Dinitrotoluene	1640	1570		ug/Kg		96	66 - 120
2-Chloronaphthalene	1640	1460		ug/Kg		89	57 - 120
2-Chlorophenol	1640	1420		ug/Kg		87	53 - 120
2-Methylphenol	1640	1460		ug/Kg		89	54 - 120
2-Methylnaphthalene	1640	1540		ug/Kg		94	59 - 120
2-Nitroaniline	1640	1450		ug/Kg		89	61 - 120
2-Nitrophenol	1640	1510		ug/Kg		92	56 - 120
3,3'-Dichlorobenzidine	3270	2940		ug/Kg		90	54 - 120
3-Nitroaniline	1640	1290		ug/Kg		79	48 - 120
4,6-Dinitro-2-methylphenol	3270	3720		ug/Kg		114	49 - 122
4-Bromophenyl phenyl ether	1640	1660		ug/Kg		101	58 - 120
4-Chloro-3-methylphenol	1640	1680		ug/Kg		103	61 - 120
4-Chloroaniline	1640	1290		ug/Kg		79	38 - 120
4-Chlorophenyl phenyl ether	1640	1610		ug/Kg		98	63 - 124
4-Methylphenol	1640	1480		ug/Kg		90	55 - 120
4-Nitroaniline	1640	1550		ug/Kg		94	56 - 120
4-Nitrophenol	3270	3790		ug/Kg		116	43 - 147
Acenaphthene	1640	1480		ug/Kg		90	62 - 120
Acenaphthylene	1640	1520		ug/Kg		93	58 - 121
Acetophenone	1640	1490		ug/Kg		91	54 - 120
Anthracene	1640	1710		ug/Kg		105	62 - 120
Atrazine	3270	3260		ug/Kg		99	60 - 127
Benzaldehyde	3270	2520		ug/Kg		77	10 - 150
Benzo[a]anthracene	1640	1680		ug/Kg		103	65 - 120
Benzo[a]pyrene	1640	1690		ug/Kg		103	64 - 120
Benzo[b]fluoranthene	1640	1670		ug/Kg		102	64 - 120
Benzo[g,h,i]perylene	1640	1710		ug/Kg		104	45 - 145
Benzo[k]fluoranthene	1640	1710		ug/Kg		104	65 - 120
Bis(2-chloroethoxy)methane	1640	1300		ug/Kg		80	55 - 120
Bis(2-chloroethyl)ether	1640	1240		ug/Kg		75	45 - 120
Bis(2-ethylhexyl) phthalate	1640	2000		ug/Kg		122	61 - 133
Butyl benzyl phthalate	1640	1910		ug/Kg		117	61 - 129
Caprolactam	3270	3070		ug/Kg		94	47 - 120
Carbazole	1640	1680		ug/Kg		103	65 - 120
Chrysene	1640	1690		ug/Kg		103	64 - 120
Dibenz(a,h)anthracene	1640	1810		ug/Kg		111	54 - 132
Di-n-butyl phthalate	1640	1830		ug/Kg		112	58 - 130
Di-n-octyl phthalate	1640	1920		ug/Kg		118	57 - 133
Dibenzofuran	1640	1570		ug/Kg		96	63 - 120
Diethyl phthalate	1640	1740		ug/Kg		106	66 - 120
Dimethyl phthalate	1640	1600		ug/Kg		98	65 - 124
Fluoranthene	1640	1680		ug/Kg		102	62 - 120
Fluorene	1640	1590		ug/Kg		97	63 - 120
Hexachlorobenzene	1640	1690		ug/Kg		103	60 - 120
Hexachlorobutadiene	1640	1650		ug/Kg		101	45 - 120

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-458780/2-A

Matrix: Solid

Analysis Batch: 459155

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 458780

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorocyclopentadiene	1640	1500		ug/Kg		92	47 - 120
Hexachloroethane	1640	1350		ug/Kg		82	41 - 120
Indeno[1,2,3-cd]pyrene	1640	1790		ug/Kg		109	56 - 134
Isophorone	1640	1370		ug/Kg		84	56 - 120
N-Nitrosodi-n-propylamine	1640	1300		ug/Kg		79	52 - 120
N-Nitrosodiphenylamine	1640	1740		ug/Kg		106	51 - 128
Naphthalene	1640	1420		ug/Kg		87	55 - 120
Nitrobenzene	1640	1290		ug/Kg		79	54 - 120
Pentachlorophenol	3270	3020		ug/Kg		92	51 - 120
Phenanthrene	1640	1670		ug/Kg		102	60 - 120
Phenol	1640	1240		ug/Kg		76	53 - 120
Pyrene	1640	1780		ug/Kg		108	61 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	84		53 - 120
Phenol-d5 (Surr)	83		54 - 120
p-Terphenyl-d14 (Surr)	120		65 - 121
2,4,6-Tribromophenol (Surr)	102		54 - 120
2-Fluorobiphenyl	90		60 - 120
2-Fluorophenol (Surr)	77		52 - 120

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-458779/1-A

Matrix: Solid

Analysis Batch: 458894

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.490	J	1.7	0.32	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
4,4'-DDE	ND		1.7	0.35	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
4,4'-DDT	ND		1.7	0.39	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
Aldrin	ND		1.7	0.41	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
alpha-BHC	ND		1.7	0.30	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
cis-Chlordane	ND		1.7	0.82	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
beta-BHC	ND		1.7	0.30	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
delta-BHC	ND		1.7	0.31	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
Dieldrin	ND		1.7	0.40	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
Endosulfan I	ND		1.7	0.32	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
Endosulfan II	ND		1.7	0.30	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
Endosulfan sulfate	ND		1.7	0.31	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
Endrin	ND		1.7	0.33	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
Endrin aldehyde	ND		1.7	0.42	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
Endrin ketone	ND		1.7	0.41	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
gamma-BHC (Lindane)	ND		1.7	0.30	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
trans-Chlordane	ND		1.7	0.53	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
Heptachlor	ND		1.7	0.36	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
Heptachlor epoxide	ND		1.7	0.43	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
Methoxychlor	ND		1.7	0.34	ug/Kg		02/12/19 14:56	02/13/19 12:31	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-458779/1-A

Matrix: Solid

Analysis Batch: 458894

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458779

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		17	9.6	ug/Kg		02/12/19 14:56	02/13/19 12:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	76		45 - 120				02/12/19 14:56	02/13/19 12:31	1
Tetrachloro-m-xylene	38		30 - 124				02/12/19 14:56	02/13/19 12:31	1

Lab Sample ID: LCS 480-458779/2-A

Matrix: Solid

Analysis Batch: 458894

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 458779

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.6	11.8		ug/Kg		71	56 - 120
4,4'-DDE	16.6	10.6		ug/Kg		64	44 - 120
4,4'-DDT	16.6	12.2		ug/Kg		74	38 - 120
Aldrin	16.6	8.25		ug/Kg		50	38 - 120
alpha-BHC	16.6	8.32		ug/Kg		50	39 - 120
cis-Chlordane	16.6	10.1		ug/Kg		61	47 - 120
beta-BHC	16.6	9.14		ug/Kg		55	40 - 120
delta-BHC	16.6	8.83		ug/Kg		53	45 - 120
Dieldrin	16.6	11.1		ug/Kg		67	58 - 120
Endosulfan I	16.6	10.2		ug/Kg		61	49 - 120
Endosulfan II	16.6	10.6		ug/Kg		64	55 - 120
Endosulfan sulfate	16.6	9.36		ug/Kg		56	49 - 124
Endrin	16.6	10.5		ug/Kg		63	58 - 120
Endrin aldehyde	16.6	10.4		ug/Kg		63	37 - 121
Endrin ketone	16.6	12.3		ug/Kg		74	46 - 123
gamma-BHC (Lindane)	16.6	8.67		ug/Kg		52	50 - 120
trans-Chlordane	16.6	9.67		ug/Kg		58	48 - 120
Heptachlor	16.6	9.90		ug/Kg		60	50 - 120
Heptachlor epoxide	16.6	10.3		ug/Kg		62	50 - 120
Methoxychlor	16.6	14.0		ug/Kg		84	58 - 133
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
DCB Decachlorobiphenyl	75		45 - 120				
Tetrachloro-m-xylene	42		30 - 124				

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 480-458979/1-A

Matrix: Solid

Analysis Batch: 459092

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 458979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.21	0.040	mg/Kg		02/13/19 14:56	02/14/19 11:09	1
PCB-1221	ND		0.21	0.040	mg/Kg		02/13/19 14:56	02/14/19 11:09	1
PCB-1232	ND		0.21	0.040	mg/Kg		02/13/19 14:56	02/14/19 11:09	1
PCB-1242	ND		0.21	0.040	mg/Kg		02/13/19 14:56	02/14/19 11:09	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 480-458979/1-A
Matrix: Solid
Analysis Batch: 459092

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458979

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1248	ND		0.21	0.040	mg/Kg		02/13/19 14:56	02/14/19 11:09	1
PCB-1254	ND		0.21	0.096	mg/Kg		02/13/19 14:56	02/14/19 11:09	1
PCB-1260	ND		0.21	0.096	mg/Kg		02/13/19 14:56	02/14/19 11:09	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	111		60 - 154	02/13/19 14:56	02/14/19 11:09	1
DCB Decachlorobiphenyl	113		65 - 174	02/13/19 14:56	02/14/19 11:09	1

Lab Sample ID: LCS 480-458979/2-A
Matrix: Solid
Analysis Batch: 459092

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458979

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
PCB-1016	2.34	2.91		mg/Kg		125	51 - 185
PCB-1260	2.34	2.75		mg/Kg		118	61 - 184

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	127		60 - 154
DCB Decachlorobiphenyl	121		65 - 174

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-458569/1-A
Matrix: Solid
Analysis Batch: 459027

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458569

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4,5-T	ND		17	5.3	ug/Kg		02/11/19 14:31	02/14/19 08:21	1
2,4-D	ND		17	10	ug/Kg		02/11/19 14:31	02/14/19 08:21	1
Silvex (2,4,5-TP)	ND		17	6.0	ug/Kg		02/11/19 14:31	02/14/19 08:21	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4-Dichlorophenylacetic acid	59		28 - 129	02/11/19 14:31	02/14/19 08:21	1

Lab Sample ID: LCS 480-458569/2-A
Matrix: Solid
Analysis Batch: 459027

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458569

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
2,4,5-T	65.1	40.8		ug/Kg		63	41 - 120
2,4-D	65.1	41.9		ug/Kg		64	40 - 120
Silvex (2,4,5-TP)	65.1	41.3		ug/Kg		63	39 - 125

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
2,4-Dichlorophenylacetic acid	62		28 - 129

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-458775/1-A
Matrix: Solid
Analysis Batch: 459070

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458775

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		9.9	4.4	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Antimony	ND		14.8	0.40	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Arsenic	ND		2.0	0.40	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Barium	ND		0.49	0.11	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Beryllium	ND		0.20	0.028	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Cadmium	ND		0.20	0.030	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Calcium	8.93	J	49.5	3.3	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Chromium	ND		0.49	0.20	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Cobalt	ND		0.49	0.049	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Copper	ND		0.99	0.21	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Iron	ND		9.9	3.5	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Lead	ND		0.99	0.24	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Magnesium	0.947	J	19.8	0.92	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Manganese	0.184	J	0.20	0.032	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Nickel	ND		4.9	0.23	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Potassium	ND		29.7	19.8	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Selenium	ND		4.0	0.40	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Silver	ND		0.59	0.20	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Thallium	ND		5.9	0.30	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Vanadium	ND		0.49	0.11	mg/Kg		02/13/19 07:47	02/13/19 19:14	1
Zinc	ND		2.0	0.63	mg/Kg		02/13/19 07:47	02/13/19 19:14	1

Lab Sample ID: MB 480-458775/1-A
Matrix: Solid
Analysis Batch: 459277

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458775

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	57.02	J	139	12.9	mg/Kg		02/13/19 07:47	02/14/19 16:19	1

Lab Sample ID: LCSSRM 480-458775/2-A
Matrix: Solid
Analysis Batch: 459070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458775

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	10100	8971		mg/Kg		88.8	41.6 - 123.8
Antimony	145	50.89		mg/Kg		35.1	10.0 - 137.2
Arsenic	171	146.3		mg/Kg		85.5	66.1 - 122.2
Barium	272	226.2		mg/Kg		83.1	71.7 - 119.5
Beryllium	102	82.06		mg/Kg		80.5	71.8 - 119.6
Cadmium	225	183.3		mg/Kg		81.5	70.2 - 117.3
Calcium	5190	4409		mg/Kg		84.9	66.7 - 117.0
Chromium	144	119.5		mg/Kg		83.0	66.1 - 122.9

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-458775/2-A
Matrix: Solid
Analysis Batch: 459070

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458775

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Cobalt	48.8	50.23		mg/Kg		102.9	74.0 - 123.4
Copper	174	155.9		mg/Kg		89.6	71.3 - 119.0
Iron	15000	13110		mg/Kg		87.4	32.9 - 154.7
Lead	111	115.3		mg/Kg		103.8	71.0 - 128.8
Magnesium	2570	2232		mg/Kg		86.9	56.4 - 125.3
Manganese	232	200.1		mg/Kg		86.3	71.1 - 125.4
Nickel	98.3	95.48		mg/Kg		97.1	65.4 - 121.1
Potassium	2420	2099		mg/Kg		86.7	49.2 - 117.8
Selenium	206	168.0		mg/Kg		81.6	63.6 - 122.3
Silver	45.5	41.26		mg/Kg		90.7	66.2 - 124.2
Thallium	167	154.5		mg/Kg		92.5	65.9 - 121.0
Vanadium	61.8	57.01		mg/Kg		92.2	52.1 - 131.6
Zinc	207	185.4		mg/Kg		89.5	67.1 - 125.1

Lab Sample ID: LCSSRM 480-458775/2-A
Matrix: Solid
Analysis Batch: 459277

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458775

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Sodium	252	224.1		mg/Kg		88.9	41.7 - 131.7

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-458986/1-A
Matrix: Solid
Analysis Batch: 459197

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 458986

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.019	0.0075	mg/Kg		02/14/19 12:00	02/14/19 14:06	1

Lab Sample ID: LCSSRM 480-458986/2-A ^10
Matrix: Solid
Analysis Batch: 459197

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 458986

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	12.0	10.86		mg/Kg		90.5	57.3 - 133.3

TestAmerica Buffalo

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

GC/MS VOA

Analysis Batch: 458475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	8260C	458491
MB 480-458491/2-A	Method Blank	Total/NA	Solid	8260C	458491
LCS 480-458491/1-A	Lab Control Sample	Total/NA	Solid	8260C	458491

Prep Batch: 458491

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	5035A_L	
MB 480-458491/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-458491/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Analysis Batch: 458609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-4	SS-2 (6 - 1 2)	Total/NA	Solid	8260C	458613
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	8260C	458613
MB 480-458613/2-A	Method Blank	Total/NA	Solid	8260C	458613
LCS 480-458613/1-A	Lab Control Sample	Total/NA	Solid	8260C	458613

Prep Batch: 458613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-4	SS-2 (6 - 1 2)	Total/NA	Solid	5035A_L	
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	5035A_L	
MB 480-458613/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-458613/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Analysis Batch: 458665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	8260C	458673
MB 480-458673/2-A	Method Blank	Total/NA	Solid	8260C	458673
LCS 480-458673/1-A	Lab Control Sample	Total/NA	Solid	8260C	458673

Prep Batch: 458673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	5035A_L	
MB 480-458673/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-458673/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

GC/MS Semi VOA

Prep Batch: 458780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-1	SS-1 (0 - 2)	Total/NA	Solid	3550C	
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	3550C	
480-148884-3	SS-2 (0 - 2)	Total/NA	Solid	3550C	
480-148884-4	SS-2 (6 - 1 2)	Total/NA	Solid	3550C	
480-148884-5	SS-3 (0 - 2)	Total/NA	Solid	3550C	
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	3550C	
480-148884-7	SS-4 (0 - 2)	Total/NA	Solid	3550C	
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	3550C	
MB 480-458780/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-458780/2-A	Lab Control Sample	Total/NA	Solid	3550C	

TestAmerica Buffalo

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

GC/MS Semi VOA (Continued)

Analysis Batch: 458953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-1	SS-1 (0 - 2)	Total/NA	Solid	8270D	458780
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	8270D	458780
480-148884-3	SS-2 (0 - 2)	Total/NA	Solid	8270D	458780
480-148884-4	SS-2 (6 -1 2)	Total/NA	Solid	8270D	458780
480-148884-5	SS-3 (0 - 2)	Total/NA	Solid	8270D	458780
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	8270D	458780
480-148884-7	SS-4 (0 - 2)	Total/NA	Solid	8270D	458780
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	8270D	458780

Analysis Batch: 459155

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-458780/1-A	Method Blank	Total/NA	Solid	8270D	458780
LCS 480-458780/2-A	Lab Control Sample	Total/NA	Solid	8270D	458780

GC Semi VOA

Prep Batch: 458569

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	8151A	
480-148884-4	SS-2 (6 -1 2)	Total/NA	Solid	8151A	
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	8151A	
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	8151A	
MB 480-458569/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 480-458569/2-A	Lab Control Sample	Total/NA	Solid	8151A	

Prep Batch: 458779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	3550C	
480-148884-4	SS-2 (6 -1 2)	Total/NA	Solid	3550C	
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	3550C	
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	3550C	
MB 480-458779/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-458779/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 458894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-458779/1-A	Method Blank	Total/NA	Solid	8081B	458779
LCS 480-458779/2-A	Lab Control Sample	Total/NA	Solid	8081B	458779

Prep Batch: 458979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	3550C	
480-148884-4	SS-2 (6 -1 2)	Total/NA	Solid	3550C	
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	3550C	
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	3550C	
MB 480-458979/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-458979/2-A	Lab Control Sample	Total/NA	Solid	3550C	

TestAmerica Buffalo

QC Association Summary

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

GC Semi VOA (Continued)

Analysis Batch: 459027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-458569/1-A	Method Blank	Total/NA	Solid	8151A	458569
LCS 480-458569/2-A	Lab Control Sample	Total/NA	Solid	8151A	458569

Analysis Batch: 459082

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	8081B	458779
480-148884-4	SS-2 (6 -1 2)	Total/NA	Solid	8081B	458779
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	8081B	458779
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	8081B	458779

Analysis Batch: 459092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	8082A	458979
480-148884-4	SS-2 (6 -1 2)	Total/NA	Solid	8082A	458979
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	8082A	458979
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	8082A	458979
MB 480-458979/1-A	Method Blank	Total/NA	Solid	8082A	458979
LCS 480-458979/2-A	Lab Control Sample	Total/NA	Solid	8082A	458979

Analysis Batch: 459243

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	8151A	458569
480-148884-4	SS-2 (6 -1 2)	Total/NA	Solid	8151A	458569
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	8151A	458569
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	8151A	458569

Metals

Prep Batch: 458775

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-1	SS-1 (0 - 2)	Total/NA	Solid	3050B	
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	3050B	
480-148884-3	SS-2 (0 - 2)	Total/NA	Solid	3050B	
480-148884-4	SS-2 (6 -1 2)	Total/NA	Solid	3050B	
480-148884-5	SS-3 (0 - 2)	Total/NA	Solid	3050B	
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	3050B	
480-148884-7	SS-4 (0 - 2)	Total/NA	Solid	3050B	
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	3050B	
MB 480-458775/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-458775/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 458986

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-1	SS-1 (0 - 2)	Total/NA	Solid	7471B	
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	7471B	
480-148884-3	SS-2 (0 - 2)	Total/NA	Solid	7471B	
480-148884-4	SS-2 (6 -1 2)	Total/NA	Solid	7471B	
480-148884-5	SS-3 (0 - 2)	Total/NA	Solid	7471B	
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	7471B	
480-148884-7	SS-4 (0 - 2)	Total/NA	Solid	7471B	

TestAmerica Buffalo

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Metals (Continued)

Prep Batch: 458986 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	7471B	
MB 480-458986/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-458986/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 459070

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-1	SS-1 (0 - 2)	Total/NA	Solid	6010C	458775
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	6010C	458775
480-148884-3	SS-2 (0 - 2)	Total/NA	Solid	6010C	458775
480-148884-4	SS-2 (6 -1 2)	Total/NA	Solid	6010C	458775
480-148884-5	SS-3 (0 - 2)	Total/NA	Solid	6010C	458775
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	6010C	458775
480-148884-7	SS-4 (0 - 2)	Total/NA	Solid	6010C	458775
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	6010C	458775
MB 480-458775/1-A	Method Blank	Total/NA	Solid	6010C	458775
LCSSRM 480-458775/2-A	Lab Control Sample	Total/NA	Solid	6010C	458775

Analysis Batch: 459167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-1	SS-1 (0 - 2)	Total/NA	Solid	6010C	458775
480-148884-3	SS-2 (0 - 2)	Total/NA	Solid	6010C	458775
480-148884-4	SS-2 (6 -1 2)	Total/NA	Solid	6010C	458775
480-148884-5	SS-3 (0 - 2)	Total/NA	Solid	6010C	458775
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	6010C	458775
480-148884-7	SS-4 (0 - 2)	Total/NA	Solid	6010C	458775

Analysis Batch: 459197

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-1	SS-1 (0 - 2)	Total/NA	Solid	7471B	458986
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	7471B	458986
480-148884-3	SS-2 (0 - 2)	Total/NA	Solid	7471B	458986
480-148884-4	SS-2 (6 -1 2)	Total/NA	Solid	7471B	458986
480-148884-5	SS-3 (0 - 2)	Total/NA	Solid	7471B	458986
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	7471B	458986
480-148884-7	SS-4 (0 - 2)	Total/NA	Solid	7471B	458986
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	7471B	458986
MB 480-458986/1-A	Method Blank	Total/NA	Solid	7471B	458986
LCSSRM 480-458986/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	458986

Analysis Batch: 459277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-458775/1-A	Method Blank	Total/NA	Solid	6010C	458775
LCSSRM 480-458775/2-A	Lab Control Sample	Total/NA	Solid	6010C	458775

General Chemistry

Analysis Batch: 458802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-1	SS-1 (0 - 2)	Total/NA	Solid	Moisture	
480-148884-2	SS-1 (6 - 12)	Total/NA	Solid	Moisture	

TestAmerica Buffalo

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

General Chemistry (Continued)

Analysis Batch: 458802 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148884-3	SS-2 (0 - 2)	Total/NA	Solid	Moisture	
480-148884-4	SS-2 (6 -1 2)	Total/NA	Solid	Moisture	
480-148884-5	SS-3 (0 - 2)	Total/NA	Solid	Moisture	
480-148884-6	SS-3 (6 - 12)	Total/NA	Solid	Moisture	
480-148884-7	SS-4 (0 - 2)	Total/NA	Solid	Moisture	
480-148884-8	SS-4 (6 - 12)	Total/NA	Solid	Moisture	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-1 (0 - 2)

Lab Sample ID: 480-148884-1

Date Collected: 02/07/19 13:30

Matrix: Solid

Date Received: 02/09/19 04:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	458802	02/12/19 18:00	CDT	TAL BUF

Client Sample ID: SS-1 (0 - 2)

Lab Sample ID: 480-148884-1

Date Collected: 02/07/19 13:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 84.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			458780	02/12/19 14:59	ATG	TAL BUF
Total/NA	Analysis	8270D		20	458953	02/13/19 16:57	DMR	TAL BUF
Total/NA	Prep	3050B			458775	02/13/19 07:47	MV	TAL BUF
Total/NA	Analysis	6010C		2	459167	02/14/19 11:16	AMH	TAL BUF
Total/NA	Prep	3050B			458775	02/13/19 07:47	MV	TAL BUF
Total/NA	Analysis	6010C		1	459070	02/13/19 20:04	AMH	TAL BUF
Total/NA	Prep	7471B			458986	02/14/19 12:00	BMB	TAL BUF
Total/NA	Analysis	7471B		1	459197	02/14/19 14:08	BMB	TAL BUF

Client Sample ID: SS-1 (6 - 12)

Lab Sample ID: 480-148884-2

Date Collected: 02/07/19 13:45

Matrix: Solid

Date Received: 02/09/19 04:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	458802	02/12/19 18:00	CDT	TAL BUF

Client Sample ID: SS-1 (6 - 12)

Lab Sample ID: 480-148884-2

Date Collected: 02/07/19 13:45

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 83.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			458491	02/09/19 12:30	CDC	TAL BUF
Total/NA	Analysis	8260C		1	458475	02/11/19 18:11	AEM	TAL BUF
Total/NA	Prep	3550C			458780	02/12/19 14:59	ATG	TAL BUF
Total/NA	Analysis	8270D		20	458953	02/13/19 17:22	DMR	TAL BUF
Total/NA	Prep	3550C			458779	02/12/19 14:56	AAP	TAL BUF
Total/NA	Analysis	8081B		50	459082	02/14/19 11:18	JLS	TAL BUF
Total/NA	Prep	3550C			458979	02/13/19 14:56	ATG	TAL BUF
Total/NA	Analysis	8082A		1	459092	02/14/19 12:45	WIT	TAL BUF
Total/NA	Prep	8151A			458569	02/11/19 14:31	SGD	TAL BUF
Total/NA	Analysis	8151A		1	459243	02/15/19 08:15	MAN	TAL BUF
Total/NA	Prep	3050B			458775	02/13/19 07:47	MV	TAL BUF
Total/NA	Analysis	6010C		1	459070	02/13/19 20:19	AMH	TAL BUF
Total/NA	Prep	7471B			458986	02/14/19 12:00	BMB	TAL BUF
Total/NA	Analysis	7471B		1	459197	02/14/19 14:09	BMB	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-2 (0 - 2)

Lab Sample ID: 480-148884-3

Date Collected: 02/07/19 14:15

Matrix: Solid

Date Received: 02/09/19 04:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	458802	02/12/19 18:00	CDT	TAL BUF

Client Sample ID: SS-2 (0 - 2)

Lab Sample ID: 480-148884-3

Date Collected: 02/07/19 14:15

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 95.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			458780	02/12/19 14:59	ATG	TAL BUF
Total/NA	Analysis	8270D		10	458953	02/13/19 17:47	DMR	TAL BUF
Total/NA	Prep	3050B			458775	02/13/19 07:47	MV	TAL BUF
Total/NA	Analysis	6010C		2	459167	02/14/19 11:20	AMH	TAL BUF
Total/NA	Prep	3050B			458775	02/13/19 07:47	MV	TAL BUF
Total/NA	Analysis	6010C		1	459070	02/13/19 20:22	AMH	TAL BUF
Total/NA	Prep	7471B			458986	02/14/19 12:00	BMB	TAL BUF
Total/NA	Analysis	7471B		1	459197	02/14/19 14:11	BMB	TAL BUF

Client Sample ID: SS-2 (6 -1 2)

Lab Sample ID: 480-148884-4

Date Collected: 02/07/19 14:30

Matrix: Solid

Date Received: 02/09/19 04:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	458802	02/12/19 18:00	CDT	TAL BUF

Client Sample ID: SS-2 (6 -1 2)

Lab Sample ID: 480-148884-4

Date Collected: 02/07/19 14:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 94.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			458613	02/09/19 12:30	AEM	TAL BUF
Total/NA	Analysis	8260C		1	458609	02/12/19 01:17	CDC	TAL BUF
Total/NA	Prep	3550C			458780	02/12/19 14:59	ATG	TAL BUF
Total/NA	Analysis	8270D		10	458953	02/13/19 18:12	DMR	TAL BUF
Total/NA	Prep	3550C			458779	02/12/19 14:56	AAP	TAL BUF
Total/NA	Analysis	8081B		50	459082	02/14/19 11:38	JLS	TAL BUF
Total/NA	Prep	3550C			458979	02/13/19 14:56	ATG	TAL BUF
Total/NA	Analysis	8082A		1	459092	02/14/19 13:01	W1T	TAL BUF
Total/NA	Prep	8151A			458569	02/11/19 14:31	SGD	TAL BUF
Total/NA	Analysis	8151A		1	459243	02/15/19 08:44	MAN	TAL BUF
Total/NA	Prep	3050B			458775	02/13/19 07:47	MV	TAL BUF
Total/NA	Analysis	6010C		5	459167	02/14/19 11:23	AMH	TAL BUF
Total/NA	Prep	3050B			458775	02/13/19 07:47	MV	TAL BUF
Total/NA	Analysis	6010C		1	459070	02/13/19 20:26	AMH	TAL BUF
Total/NA	Prep	7471B			458986	02/14/19 12:00	BMB	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-2 (6 -1 2)

Lab Sample ID: 480-148884-4

Date Collected: 02/07/19 14:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 94.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	7471B		1	459197	02/14/19 14:14	BMB	TAL BUF

Client Sample ID: SS-3 (0 - 2)

Lab Sample ID: 480-148884-5

Date Collected: 02/07/19 08:30

Matrix: Solid

Date Received: 02/09/19 04:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	458802	02/12/19 18:00	CDT	TAL BUF

Client Sample ID: SS-3 (0 - 2)

Lab Sample ID: 480-148884-5

Date Collected: 02/07/19 08:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 94.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			458780	02/12/19 14:59	ATG	TAL BUF
Total/NA	Analysis	8270D		20	458953	02/13/19 18:37	DMR	TAL BUF
Total/NA	Prep	3050B			458775	02/13/19 07:47	MV	TAL BUF
Total/NA	Analysis	6010C		2	459167	02/14/19 11:27	AMH	TAL BUF
Total/NA	Prep	3050B			458775	02/13/19 07:47	MV	TAL BUF
Total/NA	Analysis	6010C		1	459070	02/13/19 20:30	AMH	TAL BUF
Total/NA	Prep	7471B			458986	02/14/19 12:00	BMB	TAL BUF
Total/NA	Analysis	7471B		1	459197	02/14/19 14:16	BMB	TAL BUF

Client Sample ID: SS-3 (6 - 12)

Lab Sample ID: 480-148884-6

Date Collected: 02/07/19 08:50

Matrix: Solid

Date Received: 02/09/19 04:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	458802	02/12/19 18:00	CDT	TAL BUF

Client Sample ID: SS-3 (6 - 12)

Lab Sample ID: 480-148884-6

Date Collected: 02/07/19 08:50

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 92.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			458673	02/09/19 12:30	CDC	TAL BUF
Total/NA	Analysis	8260C		1	458665	02/12/19 15:06	AEM	TAL BUF
Total/NA	Prep	3550C			458780	02/12/19 14:59	ATG	TAL BUF
Total/NA	Analysis	8270D		20	458953	02/13/19 19:02	DMR	TAL BUF
Total/NA	Prep	3550C			458779	02/12/19 14:56	AAP	TAL BUF
Total/NA	Analysis	8081B		50	459082	02/14/19 11:57	JLS	TAL BUF
Total/NA	Prep	3550C			458979	02/13/19 14:56	ATG	TAL BUF
Total/NA	Analysis	8082A		1	459092	02/14/19 13:17	W1T	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			458569	02/11/19 14:31	SGD	TAL BUF
Total/NA	Analysis	8151A		1	459243	02/15/19 09:28	MAN	TAL BUF
Total/NA	Prep	3050B			458775	02/13/19 07:47	MV	TAL BUF
Total/NA	Analysis	6010C		5	459167	02/14/19 11:31	AMH	TAL BUF
Total/NA	Prep	3050B			458775	02/13/19 07:47	MV	TAL BUF
Total/NA	Analysis	6010C		1	459070	02/13/19 20:34	AMH	TAL BUF
Total/NA	Prep	7471B			458986	02/14/19 12:00	BMB	TAL BUF
Total/NA	Analysis	7471B		1	459197	02/14/19 14:17	BMB	TAL BUF

Client Sample ID: SS-4 (0 - 2)

Lab Sample ID: 480-148884-7

Date Collected: 02/07/19 09:30

Matrix: Solid

Date Received: 02/09/19 04:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	458802	02/12/19 18:00	CDT	TAL BUF

Client Sample ID: SS-4 (0 - 2)

Lab Sample ID: 480-148884-7

Date Collected: 02/07/19 09:30

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 95.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			458780	02/12/19 14:59	ATG	TAL BUF
Total/NA	Analysis	8270D		20	458953	02/13/19 19:27	DMR	TAL BUF
Total/NA	Prep	3050B			458775	02/13/19 07:47	MV	TAL BUF
Total/NA	Analysis	6010C		5	459167	02/14/19 11:35	AMH	TAL BUF
Total/NA	Prep	3050B			458775	02/13/19 07:47	MV	TAL BUF
Total/NA	Analysis	6010C		1	459070	02/13/19 20:37	AMH	TAL BUF
Total/NA	Prep	7471B			458986	02/14/19 12:00	BMB	TAL BUF
Total/NA	Analysis	7471B		1	459197	02/14/19 14:18	BMB	TAL BUF

Client Sample ID: SS-4 (6 - 12)

Lab Sample ID: 480-148884-8

Date Collected: 02/07/19 09:50

Matrix: Solid

Date Received: 02/09/19 04:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	458802	02/12/19 18:00	CDT	TAL BUF

Client Sample ID: SS-4 (6 - 12)

Lab Sample ID: 480-148884-8

Date Collected: 02/07/19 09:50

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			458613	02/09/19 12:30	AEM	TAL BUF
Total/NA	Analysis	8260C		1	458609	02/12/19 02:08	CDC	TAL BUF
Total/NA	Prep	3550C			458780	02/12/19 14:59	ATG	TAL BUF
Total/NA	Analysis	8270D		10	458953	02/13/19 19:52	DMR	TAL BUF
Total/NA	Prep	3550C			458779	02/12/19 14:56	AAP	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Client Sample ID: SS-4 (6 - 12)

Lab Sample ID: 480-148884-8

Date Collected: 02/07/19 09:50

Matrix: Solid

Date Received: 02/09/19 04:00

Percent Solids: 92.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8081B		10	459082	02/14/19 12:17	JLS	TAL BUF
Total/NA	Prep	3550C			458979	02/13/19 14:56	ATG	TAL BUF
Total/NA	Analysis	8082A		1	459092	02/14/19 13:33	W1T	TAL BUF
Total/NA	Prep	8151A			458569	02/11/19 14:31	SGD	TAL BUF
Total/NA	Analysis	8151A		1	459243	02/15/19 09:58	MAN	TAL BUF
Total/NA	Prep	3050B			458775	02/13/19 07:47	MV	TAL BUF
Total/NA	Analysis	6010C		1	459070	02/13/19 20:41	AMH	TAL BUF
Total/NA	Prep	7471B			458986	02/14/19 12:00	BMB	TAL BUF
Total/NA	Analysis	7471B		1	459197	02/14/19 14:19	BMB	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



Method Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF
3050B	Preparation, Metals	SW846	TAL BUF
3550C	Ultrasonic Extraction	SW846	TAL BUF
5035A_L	Closed System Purge and Trap	SW846	TAL BUF
7471B	Preparation, Mercury	SW846	TAL BUF
8151A	Extraction (Herbicides)	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148884-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-148884-1	SS-1 (0 - 2)	Solid	02/07/19 13:30	02/09/19 04:00
480-148884-2	SS-1 (6 - 12)	Solid	02/07/19 13:45	02/09/19 04:00
480-148884-3	SS-2 (0 - 2)	Solid	02/07/19 14:15	02/09/19 04:00
480-148884-4	SS-2 (6 - 1 2)	Solid	02/07/19 14:30	02/09/19 04:00
480-148884-5	SS-3 (0 - 2)	Solid	02/07/19 08:30	02/09/19 04:00
480-148884-6	SS-3 (6 - 12)	Solid	02/07/19 08:50	02/09/19 04:00
480-148884-7	SS-4 (0 - 2)	Solid	02/07/19 09:30	02/09/19 04:00
480-148884-8	SS-4 (6 - 12)	Solid	02/07/19 09:50	02/09/19 04:00



TestAmerica Buffalo

10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Chain of Custody Record



Client Information		Sampler: <u>Angei Arcejo</u>		Lab PM: Stone, Judy L		Carrier Tracking No(s):		COC No: 480-122575-28123.2	
Client Contact: Matt Walker		Phone: <u>315-720-5335</u>		E-Mail: judy.stone@testamericainc.com				Page: Page 2 of 3	
Company: C&S Engineers, Inc.		Due Date Requested:						Job #:	
Address: 499 Col. Eileen Collins Blvd		TAT Requested (days): <u>Standard</u>						Preservation Codes:	
City: Syracuse		PO #: Purchase Order Requested						A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify)	
State, Zip: NY, 13212		WO #:						Other:	
Phone: 315-703-4323(Tel)		Project #: 48019328							
Email: mawalker@cscos.com		SSOW#:							
Project Name: Former Zip Zip Mini Mart Site									
Site:									

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)				Total Number of containers	Special Instructions/Note:
					Perform MS/MSD	6010C, 7471B	8270D - TCL SVOA - OLM04.2	8280C - TCL list OLM04.2		
			Preservation Code:		X	X	X	X		
SS-1 (0-2)	2/7	1:30 pm	Solid		X	X				
SS-1 (6-12)	2/7	1:45 pm	Solid		X		X	X		
SS-2 (0-2)	2/7	2:15 pm	Solid		X	X				
SS-2 (6-12)	2/7	2:30 pm	Solid		X		X	X		
SS-3 (0-2)	2/8	8:30 Am	Solid		X	X				
SS-3 (6-12)	2/8	8:50 Am	Solid		X		X	X		
SS-4 (0-2)	2/8	9:30 Am	Solid		X	X				
SS-4 (6-12)	2/8	9:50 Am	Solid		X		X	X		
SS-4 (0-2)			Solid							
SS-4 (6-12)			Solid							
2-8-19 RE			Solid							
			Solid							

Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
<input type="checkbox"/> Non-Hazard	<input type="checkbox"/> Flammable	<input type="checkbox"/> Skin Irritant	<input type="checkbox"/> Poison B	<input type="checkbox"/> Unknown	<input type="checkbox"/> Radiological	<input type="checkbox"/> Return To Client	<input type="checkbox"/> Disposal By Lab	<input type="checkbox"/> Archive For _____ Months
Deliverable Requested: I, II, III, <input checked="" type="checkbox"/> Other (specify)				Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:				
Relinquished by: <u>Angei Arcejo</u>		Date/Time: <u>2/8 10:00</u>	Company: <u>C&S</u>	Received by: <u>REINHOLD</u>		Date/Time: <u>2-8-19, 10:22</u>	Company: <u>Sy 2</u>	
Relinquished by: <u>REINHOLD</u>		Date/Time: <u>2-8-19, 19:00</u>	Company: <u>Sy 2</u>	Received by: <u>WALKER</u>		Date/Time: <u>02-09-19 0400</u>	Company:	
Relinquished by:		Date/Time:	Company:	Received by:		Date/Time:	Company:	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: <u>0.7 #3</u>						



Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-148884-1

Login Number: 148884

List Source: TestAmerica Buffalo

List Number: 1

Creator: Velickovic, Zoran

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	Freezer 02/09/19 @ 12:30 PM
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	C&S Engineers, Inc.
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-147988-1

Client Project/Site: Former Zip Zip Mini Mart Site

For:

C&S Engineers, Inc.

499 Col. Eileen Collins Blvd

Syracuse, New York 13212

Attn: Matt Walker



Authorized for release by:

1/23/2019 8:33:28 PM

Judy Stone, Senior Project Manager

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judy.stone@testamericainc.com

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Job ID: 480-147988-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-147988-1

Receipt

The samples were received on 1/16/2019 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.7° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base surrogate to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: SB-1 (5-10) (480-147988-2). These results have been reported and qualified.

Method(s) 8270D: The Method Blank (MB) for preparation batch 480-455529 and analytical batch 480-455698 recovered outside control limits for the following surrogate: 2,4,6-Tribromophenol. This surrogate is biased high and no detections were found for associated analytes in the following affected samples: SB-1 (5-10) (480-147988-2). Therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method(s) 8081B: The continuing calibration verification (CCV 480-455659/8) associated with batch 480-455659 recovered above the upper control limit for Toxaphene. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following sample is impacted: SB-1 (5-10) (480-147988-2).

Method(s) 8081B: All primary data for analytical batch 455659 are reported from the RTX-CLPII column.

Method(s) 8151A: The continuing calibration verification (CCV 480-455991/9) recovered above the upper control limit for the surrogate 2,4-Dichlorophenylacetic acid. The samples associated with this CCV were non-detect for any target analytes and the surrogate results are not adversely affected; therefore, the data have been reported. The following sample is impacted: SB-1 (5-10) (480-147988-2).

Method(s) 8151A: All primary data for analytical batch 455991 are reported from the RTX-CLPI column.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010C: The method blank for preparation batch 480-455541 and analytical batch 480-455926 contained Total Potassium above the reporting limit (RL). Associated sample SB-1 (5-10) (480-147988-3) was not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Client Sample ID: SB-1 (3-5)

Lab Sample ID: 480-147988-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorobenzene	1.7	J	4.5	0.35	ug/Kg	1	☼	8260C	Total/NA
1,4-Dichlorobenzene	2.1	J	4.5	0.63	ug/Kg	1	☼	8260C	Total/NA
2-Butanone (MEK)	18	J	22	1.6	ug/Kg	1	☼	8260C	Total/NA
Acetone	86		22	3.8	ug/Kg	1	☼	8260C	Total/NA
Chlorobenzene	5.7		4.5	0.59	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	4.2	J	4.5	2.1	ug/Kg	1	☼	8260C	Total/NA
Toluene	0.82	J B	4.5	0.34	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: SB-1 (5-10)

Lab Sample ID: 480-147988-2

No Detections.

Client Sample ID: SB-1 (5-10)

Lab Sample ID: 480-147988-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	14400	B	14.5	6.4	mg/Kg	1	☼	6010C	Total/NA
Arsenic	2.9		2.9	0.58	mg/Kg	1	☼	6010C	Total/NA
Barium	71.4		0.73	0.16	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.54		0.29	0.041	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.17	J	0.29	0.044	mg/Kg	1	☼	6010C	Total/NA
Calcium	111000	B	72.7	4.8	mg/Kg	1	☼	6010C	Total/NA
Chromium	21.1		0.73	0.29	mg/Kg	1	☼	6010C	Total/NA
Cobalt	8.7		0.73	0.073	mg/Kg	1	☼	6010C	Total/NA
Copper	25.2		1.5	0.31	mg/Kg	1	☼	6010C	Total/NA
Iron	15500		14.5	5.1	mg/Kg	1	☼	6010C	Total/NA
Lead	7.5		1.5	0.35	mg/Kg	1	☼	6010C	Total/NA
Magnesium	62900	B	29.1	1.3	mg/Kg	1	☼	6010C	Total/NA
Manganese	350		0.29	0.047	mg/Kg	1	☼	6010C	Total/NA
Nickel	33.8	B	7.3	0.33	mg/Kg	1	☼	6010C	Total/NA
Potassium	6070	B	43.6	29.1	mg/Kg	1	☼	6010C	Total/NA
Sodium	296	B	204	18.9	mg/Kg	1	☼	6010C	Total/NA
Vanadium	24.1		0.73	0.16	mg/Kg	1	☼	6010C	Total/NA
Zinc	30.8		2.9	0.93	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.021	J	0.029	0.012	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB-1 (5-10)

Lab Sample ID: 480-147988-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	52		24	4.0	ug/Kg	1	☼	8260C	Total/NA
Toluene	0.65	J B	4.8	0.36	ug/Kg	1	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Client Sample ID: SB-1 (3-5)

Lab Sample ID: 480-147988-1

Date Collected: 01/15/19 15:00

Matrix: Solid

Date Received: 01/16/19 01:00

Percent Solids: 89.3

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.5	0.33	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
1,1,1,2-Tetrachloroethane	ND		4.5	0.73	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
1,1,2-Trichloroethane	ND		4.5	0.58	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.5	1.0	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
1,1-Dichloroethane	ND		4.5	0.55	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
1,1-Dichloroethene	ND		4.5	0.55	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
1,2,4-Trichlorobenzene	ND		4.5	0.27	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
1,2-Dibromo-3-Chloropropane	ND		4.5	2.2	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
1,2-Dichlorobenzene	1.7	J	4.5	0.35	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
1,2-Dichloroethane	ND		4.5	0.23	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
1,2-Dichloropropane	ND		4.5	2.2	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
1,3-Dichlorobenzene	ND		4.5	0.23	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
1,4-Dichlorobenzene	2.1	J	4.5	0.63	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
2-Butanone (MEK)	18	J	22	1.6	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
2-Hexanone	ND		22	2.2	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
4-Methyl-2-pentanone (MIBK)	ND		22	1.5	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Acetone	86		22	3.8	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Benzene	ND		4.5	0.22	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Bromodichloromethane	ND		4.5	0.60	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Bromoform	ND		4.5	2.2	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Bromomethane	ND		4.5	0.40	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Carbon disulfide	ND		4.5	2.2	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Carbon tetrachloride	ND		4.5	0.44	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Chlorobenzene	5.7		4.5	0.59	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Dibromochloromethane	ND		4.5	0.58	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Chloroethane	ND		4.5	1.0	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Chloroform	ND		4.5	0.28	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Chloromethane	ND		4.5	0.27	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
cis-1,2-Dichloroethene	ND		4.5	0.58	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
cis-1,3-Dichloropropene	ND		4.5	0.65	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Cyclohexane	ND		4.5	0.63	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Dichlorodifluoromethane	ND		4.5	0.37	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Ethylbenzene	ND		4.5	0.31	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
1,2-Dibromoethane	ND		4.5	0.58	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Isopropylbenzene	ND		4.5	0.68	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Methyl acetate	ND		22	2.7	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Methyl tert-butyl ether	ND		4.5	0.44	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Methylcyclohexane	ND		4.5	0.68	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Methylene Chloride	4.2	J	4.5	2.1	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Styrene	ND		4.5	0.22	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Tetrachloroethene	ND		4.5	0.60	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Toluene	0.82	J B	4.5	0.34	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
trans-1,2-Dichloroethene	ND		4.5	0.46	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
trans-1,3-Dichloropropene	ND		4.5	2.0	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Trichloroethene	ND		4.5	0.99	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Trichlorofluoromethane	ND		4.5	0.43	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Vinyl chloride	ND		4.5	0.55	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1
Xylenes, Total	ND		9.0	0.76	ug/Kg	☼	01/17/19 07:40	01/17/19 14:52	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Client Sample ID: SB-1 (3-5)

Lab Sample ID: 480-147988-1

Date Collected: 01/15/19 15:00

Matrix: Solid

Date Received: 01/16/19 01:00

Percent Solids: 89.3

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Toluene-d8 (Surr)	100		71 - 125	01/17/19 07:40	01/17/19 14:52	1
1,2-Dichloroethane-d4 (Surr)	106		64 - 126	01/17/19 07:40	01/17/19 14:52	1
4-Bromofluorobenzene (Surr)	96		72 - 126	01/17/19 07:40	01/17/19 14:52	1
Dibromofluoromethane (Surr)	101		60 - 140	01/17/19 07:40	01/17/19 14:52	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Client Sample ID: SB-1 (5-10)

Lab Sample ID: 480-147988-2

Date Collected: 01/15/19 15:00

Matrix: Solid

Date Received: 01/16/19 01:00

Percent Solids: 69.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		240	36	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
bis (2-chloroisopropyl) ether	ND		240	49	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
2,4,5-Trichlorophenol	ND		240	66	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
2,4,6-Trichlorophenol	ND		240	49	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
2,4-Dichlorophenol	ND		240	26	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
2,4-Dimethylphenol	ND		240	59	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
2,4-Dinitrophenol	ND		2400	1100	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
2,4-Dinitrotoluene	ND		240	50	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
2,6-Dinitrotoluene	ND		240	29	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
2-Chloronaphthalene	ND		240	40	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
2-Chlorophenol	ND		240	44	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
2-Methylphenol	ND		240	29	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
2-Methylnaphthalene	ND		240	49	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
2-Nitroaniline	ND		470	36	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
2-Nitrophenol	ND		240	69	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
3,3'-Dichlorobenzidine	ND		470	290	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
3-Nitroaniline	ND		470	67	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
4,6-Dinitro-2-methylphenol	ND		470	240	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
4-Bromophenyl phenyl ether	ND		240	34	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
4-Chloro-3-methylphenol	ND		240	60	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
4-Chloroaniline	ND		240	60	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
4-Chlorophenyl phenyl ether	ND		240	30	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
4-Methylphenol	ND		470	29	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
4-Nitroaniline	ND		470	130	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
4-Nitrophenol	ND		470	170	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Acenaphthene	ND		240	36	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Acenaphthylene	ND		240	32	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Acetophenone	ND		240	33	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Anthracene	ND		240	60	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Atrazine	ND		240	85	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Benzaldehyde	ND		240	190	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Benzo[a]anthracene	ND		240	24	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Benzo[a]pyrene	ND		240	36	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Benzo[b]fluoranthene	ND		240	39	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Benzo[g,h,i]perylene	ND		240	26	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Benzo[k]fluoranthene	ND		240	32	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Bis(2-chloroethoxy)methane	ND		240	52	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Bis(2-chloroethyl)ether	ND		240	32	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Bis(2-ethylhexyl) phthalate	ND		240	83	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Butyl benzyl phthalate	ND		240	40	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Caprolactam	ND		240	73	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Carbazole	ND		240	29	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Chrysene	ND		240	54	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Dibenz(a,h)anthracene	ND		240	43	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Di-n-butyl phthalate	ND		240	42	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Di-n-octyl phthalate	ND		240	29	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Dibenzofuran	ND		240	29	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Diethyl phthalate	ND		240	32	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Dimethyl phthalate	ND		240	29	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Client Sample ID: SB-1 (5-10)

Lab Sample ID: 480-147988-2

Date Collected: 01/15/19 15:00

Matrix: Solid

Date Received: 01/16/19 01:00

Percent Solids: 69.1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		240	26	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Fluorene	ND		240	29	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Hexachlorobenzene	ND		240	33	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Hexachlorobutadiene	ND		240	36	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Hexachlorocyclopentadiene	ND		240	33	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Hexachloroethane	ND		240	32	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Indeno[1,2,3-cd]pyrene	ND		240	30	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Isophorone	ND		240	52	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
N-Nitrosodi-n-propylamine	ND		240	42	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
N-Nitrosodiphenylamine	ND		240	200	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Naphthalene	ND		240	32	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Nitrobenzene	ND		240	27	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Pentachlorophenol	ND		470	240	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Phenanthrene	ND		240	36	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Phenol	ND		240	37	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Pyrene	ND		240	29	ug/Kg	☼	01/17/19 14:43	01/18/19 20:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	90		53 - 120				01/17/19 14:43	01/18/19 20:41	1
Phenol-d5 (Surr)	84		54 - 120				01/17/19 14:43	01/18/19 20:41	1
p-Terphenyl-d14 (Surr)	125	X	65 - 121				01/17/19 14:43	01/18/19 20:41	1
2,4,6-Tribromophenol (Surr)	86		54 - 120				01/17/19 14:43	01/18/19 20:41	1
2-Fluorobiphenyl	97		60 - 120				01/17/19 14:43	01/18/19 20:41	1
2-Fluorophenol (Surr)	83		52 - 120				01/17/19 14:43	01/18/19 20:41	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		2.4	0.46	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
4,4'-DDE	ND		2.4	0.50	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
4,4'-DDT	ND		2.4	0.55	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
Aldrin	ND		2.4	0.58	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
alpha-BHC	ND		2.4	0.43	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
cis-Chlordane	ND		2.4	1.2	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
beta-BHC	ND		2.4	0.43	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
delta-BHC	ND		2.4	0.44	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
Dieldrin	ND		2.4	0.57	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
Endosulfan I	ND		2.4	0.45	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
Endosulfan II	ND		2.4	0.43	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
Endosulfan sulfate	ND		2.4	0.44	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
Endrin	ND		2.4	0.47	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
Endrin aldehyde	ND		2.4	0.61	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
Endrin ketone	ND		2.4	0.58	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
gamma-BHC (Lindane)	ND		2.4	0.43	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
trans-Chlordane	ND		2.4	0.75	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
Heptachlor	ND		2.4	0.51	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
Heptachlor epoxide	ND		2.4	0.61	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
Methoxychlor	ND		2.4	0.48	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1
Toxaphene	ND		24	14	ug/Kg	☼	01/17/19 11:49	01/18/19 18:04	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Client Sample ID: SB-1 (5-10)

Lab Sample ID: 480-147988-2

Date Collected: 01/15/19 15:00

Matrix: Solid

Date Received: 01/16/19 01:00

Percent Solids: 69.1

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>				<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
DCB Decachlorobiphenyl	111		45 - 120				01/17/19 11:49	01/18/19 18:04	1
Tetrachloro-m-xylene	74		30 - 124				01/17/19 11:49	01/18/19 18:04	1

Method: 8151A - Herbicides (GC)									
<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>RL</u>	<u>MDL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
2,4,5-T	ND		24	7.6	ug/Kg	✱	01/17/19 11:54	01/22/19 10:01	1
2,4-D	ND		24	15	ug/Kg	✱	01/17/19 11:54	01/22/19 10:01	1
Silvex (2,4,5-TP)	ND		24	8.6	ug/Kg	✱	01/17/19 11:54	01/22/19 10:01	1

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>				<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
2,4-Dichlorophenylacetic acid	63		28 - 129				01/17/19 11:54	01/22/19 10:01	1

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Client Sample ID: SB-1 (5-10)

Lab Sample ID: 480-147988-3

Date Collected: 01/15/19 15:00

Matrix: Solid

Date Received: 01/16/19 01:00

Percent Solids: 69.1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14400	B	14.5	6.4	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Antimony	ND		21.8	0.58	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Arsenic	2.9		2.9	0.58	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Barium	71.4		0.73	0.16	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Beryllium	0.54		0.29	0.041	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Cadmium	0.17	J	0.29	0.044	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Calcium	111000	B	72.7	4.8	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Chromium	21.1		0.73	0.29	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Cobalt	8.7		0.73	0.073	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Copper	25.2		1.5	0.31	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Iron	15500		14.5	5.1	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Lead	7.5		1.5	0.35	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Magnesium	62900	B	29.1	1.3	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Manganese	350		0.29	0.047	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Nickel	33.8	B	7.3	0.33	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Potassium	6070	B	43.6	29.1	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Selenium	ND		5.8	0.58	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Silver	ND		0.87	0.29	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Sodium	296	B	204	18.9	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Thallium	ND		8.7	0.44	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Vanadium	24.1		0.73	0.16	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1
Zinc	30.8		2.9	0.93	mg/Kg	☼	01/18/19 10:20	01/21/19 11:24	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.021	J	0.029	0.012	mg/Kg	☼	01/22/19 11:10	01/22/19 14:05	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Client Sample ID: SB-1 (5-10)

Lab Sample ID: 480-147988-4

Date Collected: 01/15/19 15:00

Matrix: Solid

Date Received: 01/16/19 01:00

Percent Solids: 90.8

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.8	0.35	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
1,1,1,2,2-Tetrachloroethane	ND		4.8	0.77	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
1,1,2-Trichloroethane	ND		4.8	0.62	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.8	1.1	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
1,1-Dichloroethane	ND		4.8	0.58	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
1,1-Dichloroethene	ND		4.8	0.58	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
1,2,4-Trichlorobenzene	ND		4.8	0.29	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
1,2-Dibromo-3-Chloropropane	ND		4.8	2.4	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
1,2-Dichlorobenzene	ND		4.8	0.37	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
1,2-Dichloroethane	ND		4.8	0.24	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
1,2-Dichloropropane	ND		4.8	2.4	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
1,3-Dichlorobenzene	ND		4.8	0.25	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
1,4-Dichlorobenzene	ND		4.8	0.67	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
2-Butanone (MEK)	ND		24	1.7	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
2-Hexanone	ND		24	2.4	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
4-Methyl-2-pentanone (MIBK)	ND		24	1.6	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Acetone	52		24	4.0	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Benzene	ND		4.8	0.23	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Bromodichloromethane	ND		4.8	0.64	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Bromoform	ND		4.8	2.4	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Bromomethane	ND		4.8	0.43	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Carbon disulfide	ND		4.8	2.4	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Carbon tetrachloride	ND		4.8	0.46	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Chlorobenzene	ND		4.8	0.63	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Dibromochloromethane	ND		4.8	0.61	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Chloroethane	ND		4.8	1.1	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Chloroform	ND		4.8	0.29	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Chloromethane	ND		4.8	0.29	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
cis-1,2-Dichloroethene	ND		4.8	0.61	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
cis-1,3-Dichloropropene	ND		4.8	0.69	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Cyclohexane	ND		4.8	0.67	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Dichlorodifluoromethane	ND		4.8	0.39	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Ethylbenzene	ND		4.8	0.33	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
1,2-Dibromoethane	ND		4.8	0.61	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Isopropylbenzene	ND		4.8	0.72	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Methyl acetate	ND		24	2.9	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Methyl tert-butyl ether	ND		4.8	0.47	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Methylcyclohexane	ND		4.8	0.73	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Methylene Chloride	ND		4.8	2.2	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Styrene	ND		4.8	0.24	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Tetrachloroethene	ND		4.8	0.64	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Toluene	0.65	J B	4.8	0.36	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
trans-1,2-Dichloroethene	ND		4.8	0.49	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
trans-1,3-Dichloropropene	ND		4.8	2.1	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Trichloroethene	ND		4.8	1.0	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Trichlorofluoromethane	ND		4.8	0.45	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Vinyl chloride	ND		4.8	0.58	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1
Xylenes, Total	ND		9.5	0.80	ug/Kg	☼	01/17/19 07:40	01/17/19 15:17	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Client Sample ID: SB-1 (5-10)

Lab Sample ID: 480-147988-4

Date Collected: 01/15/19 15:00

Matrix: Solid

Date Received: 01/16/19 01:00

Percent Solids: 90.8

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Toluene-d8 (Surr)	99		71 - 125	01/17/19 07:40	01/17/19 15:17	1
1,2-Dichloroethane-d4 (Surr)	104		64 - 126	01/17/19 07:40	01/17/19 15:17	1
4-Bromofluorobenzene (Surr)	98		72 - 126	01/17/19 07:40	01/17/19 15:17	1
Dibromofluoromethane (Surr)	101		60 - 140	01/17/19 07:40	01/17/19 15:17	1

Surrogate Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (71-125)	DCA (64-126)	BFB (72-126)	DBFM (60-140)
480-147988-1	SB-1 (3-5)	100	106	96	101
480-147988-4	SB-1 (5-10)	99	104	98	101
LCS 480-455426/1-A	Lab Control Sample	101	100	99	100
MB 480-455426/2-A	Method Blank	101	105	98	101

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (53-120)	PHL (54-120)	TPHd14 (65-121)	TBP (54-120)	FBP (60-120)	2FP (52-120)
480-147988-2	SB-1 (5-10)	90	84	125 X	86	97	83
LCS 480-455529/2-A	Lab Control Sample	86	84	112	97	95	81
MB 480-455529/1-A	Method Blank	89	86	128 X	92	97	83

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCBP2 (45-120)	TCX2 (30-124)
480-147988-2	SB-1 (5-10)	111	74
LCS 480-455500/2-A	Lab Control Sample	101	71
LCSD 480-455500/3-A	Lab Control Sample Dup	105	77
MB 480-455500/1-A	Method Blank	109	73

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Method: 8151A - Herbicides (GC)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DCPAA1 (28-129)
480-147988-2	SB-1 (5-10)	63
LCS 480-455501/2-A	Lab Control Sample	70
LCSD 480-455501/3-A	Lab Control Sample Dup	62
MB 480-455501/1-A	Method Blank	65

Surrogate Legend

DCPAA = 2,4-Dichlorophenylacetic acid

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-455426/2-A

Matrix: Solid

Analysis Batch: 455409

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 455426

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
2-Hexanone	ND		25	2.5	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Acetone	ND		25	4.2	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Benzene	ND		5.0	0.25	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Bromoform	ND		5.0	2.5	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Bromomethane	ND		5.0	0.45	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Chloroethane	ND		5.0	1.1	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Chloroform	ND		5.0	0.31	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Chloromethane	ND		5.0	0.30	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Cyclohexane	ND		5.0	0.70	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Methyl acetate	ND		25	3.0	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Styrene	ND		5.0	0.25	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Toluene	0.638	J	5.0	0.38	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Trichloroethene	ND		5.0	1.1	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		01/17/19 07:40	01/17/19 11:40	1
Xylenes, Total	ND		10	0.84	ug/Kg		01/17/19 07:40	01/17/19 11:40	1

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QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	101		71 - 125	01/17/19 07:40	01/17/19 11:40	1
1,2-Dichloroethane-d4 (Surr)	105		64 - 126	01/17/19 07:40	01/17/19 11:40	1
4-Bromofluorobenzene (Surr)	98		72 - 126	01/17/19 07:40	01/17/19 11:40	1
Dibromofluoromethane (Surr)	101		60 - 140	01/17/19 07:40	01/17/19 11:40	1

Lab Sample ID: LCS 480-455426/1-A

Matrix: Solid

Analysis Batch: 455409

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 455426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	50.0	45.5		ug/Kg		91	80 - 120
1,1,2-Trichloroethane	50.0	45.0		ug/Kg		90	78 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	46.2		ug/Kg		92	60 - 140
1,1-Dichloroethane	50.0	47.6		ug/Kg		95	73 - 126
1,1-Dichloroethene	50.0	45.2		ug/Kg		90	59 - 125
1,2,4-Trichlorobenzene	50.0	46.9		ug/Kg		94	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	44.4		ug/Kg		89	63 - 124
1,2-Dichlorobenzene	50.0	46.6		ug/Kg		93	75 - 120
1,2-Dichloroethane	50.0	47.7		ug/Kg		95	77 - 122
1,2-Dichloropropane	50.0	46.4		ug/Kg		93	75 - 124
1,3-Dichlorobenzene	50.0	48.0		ug/Kg		96	74 - 120
1,4-Dichlorobenzene	50.0	47.5		ug/Kg		95	73 - 120
2-Butanone (MEK)	250	243		ug/Kg		97	70 - 134
2-Hexanone	250	239		ug/Kg		95	59 - 130
4-Methyl-2-pentanone (MIBK)	250	235		ug/Kg		94	65 - 133
Acetone	250	255		ug/Kg		102	61 - 137
Benzene	50.0	47.0		ug/Kg		94	79 - 127
Bromodichloromethane	50.0	46.9		ug/Kg		94	80 - 122
Bromoform	50.0	47.4		ug/Kg		95	68 - 126
Bromomethane	50.0	57.7		ug/Kg		115	37 - 149
Carbon disulfide	50.0	45.1		ug/Kg		90	64 - 131
Carbon tetrachloride	50.0	47.3		ug/Kg		95	75 - 135
Chlorobenzene	50.0	46.9		ug/Kg		94	76 - 124
Dibromochloromethane	50.0	47.2		ug/Kg		94	76 - 125
Chloroethane	50.0	53.3		ug/Kg		107	69 - 135
Chloroform	50.0	47.8		ug/Kg		96	80 - 120
Chloromethane	50.0	50.0		ug/Kg		100	63 - 127
cis-1,2-Dichloroethene	50.0	46.5		ug/Kg		93	81 - 120
cis-1,3-Dichloropropene	50.0	46.7		ug/Kg		93	80 - 120
Cyclohexane	50.0	43.5		ug/Kg		87	65 - 120
Dichlorodifluoromethane	50.0	45.4		ug/Kg		91	57 - 142
Ethylbenzene	50.0	46.9		ug/Kg		94	80 - 120
1,2-Dibromoethane	50.0	45.6		ug/Kg		91	78 - 120
Isopropylbenzene	50.0	46.7		ug/Kg		93	72 - 120
Methyl acetate	100	93.2		ug/Kg		93	55 - 136
Methyl tert-butyl ether	50.0	46.5		ug/Kg		93	63 - 125
Methylcyclohexane	50.0	44.4		ug/Kg		89	60 - 140
Methylene Chloride	50.0	43.0		ug/Kg		86	61 - 127
Styrene	50.0	45.7		ug/Kg		91	80 - 120
Tetrachloroethene	50.0	46.3		ug/Kg		93	74 - 122
Toluene	50.0	47.1		ug/Kg		94	74 - 128
trans-1,2-Dichloroethene	50.0	47.1		ug/Kg		94	78 - 126

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-455426/1-A
Matrix: Solid
Analysis Batch: 455409

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 455426

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	50.0	47.0		ug/Kg		94	73 - 123
Trichloroethene	50.0	46.1		ug/Kg		92	77 - 129
Trichlorofluoromethane	50.0	50.2		ug/Kg		100	65 - 146
Vinyl chloride	50.0	50.9		ug/Kg		102	61 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	101		71 - 125
1,2-Dichloroethane-d4 (Surr)	100		64 - 126
4-Bromofluorobenzene (Surr)	99		72 - 126
Dibromofluoromethane (Surr)	100		60 - 140

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-455529/1-A
Matrix: Solid
Analysis Batch: 455698

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 455529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		170	25	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2,4-Dinitrophenol	ND		1600	780	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2-Chloronaphthalene	ND		170	28	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2-Chlorophenol	ND		170	31	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2-Methylphenol	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2-Methylnaphthalene	ND		170	34	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2-Nitroaniline	ND		330	25	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2-Nitrophenol	ND		170	48	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
3-Nitroaniline	ND		330	47	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4-Chloroaniline	ND		170	42	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4-Methylphenol	ND		330	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4-Nitroaniline	ND		330	88	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4-Nitrophenol	ND		330	120	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Acenaphthene	ND		170	25	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Acenaphthylene	ND		170	22	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Acetophenone	ND		170	23	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Anthracene	ND		170	42	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Atrazine	ND		170	59	ug/Kg		01/17/19 14:43	01/18/19 17:50	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-45529/1-A

Matrix: Solid

Analysis Batch: 455698

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 45529

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzaldehyde	ND		170	130	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Benzo[a]anthracene	ND		170	17	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Benzo[a]pyrene	ND		170	25	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Caprolactam	ND		170	51	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Carbazole	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Chrysene	ND		170	38	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Dibenzofuran	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Diethyl phthalate	ND		170	22	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Dimethyl phthalate	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Fluoranthene	ND		170	18	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Fluorene	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Hexachlorobenzene	ND		170	23	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Hexachlorobutadiene	ND		170	25	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Hexachloroethane	ND		170	22	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Isophorone	ND		170	36	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Naphthalene	ND		170	22	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Nitrobenzene	ND		170	19	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Pentachlorophenol	ND		330	170	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Phenanthrene	ND		170	25	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Phenol	ND		170	26	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Pyrene	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Nitrobenzene-d5 (Surr)	89		53 - 120	01/17/19 14:43	01/18/19 17:50	1
Phenol-d5 (Surr)	86		54 - 120	01/17/19 14:43	01/18/19 17:50	1
p-Terphenyl-d14 (Surr)	128	X	65 - 121	01/17/19 14:43	01/18/19 17:50	1
2,4,6-Tribromophenol (Surr)	92		54 - 120	01/17/19 14:43	01/18/19 17:50	1
2-Fluorobiphenyl	97		60 - 120	01/17/19 14:43	01/18/19 17:50	1
2-Fluorophenol (Surr)	83		52 - 120	01/17/19 14:43	01/18/19 17:50	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-455529/2-A

Matrix: Solid

Analysis Batch: 455698

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 455529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biphenyl	1650	1550		ug/Kg		94	59 - 120
bis (2-chloroisopropyl) ether	1650	1280		ug/Kg		78	44 - 120
2,4,5-Trichlorophenol	1650	1560		ug/Kg		94	59 - 126
2,4,6-Trichlorophenol	1650	1560		ug/Kg		95	59 - 123
2,4-Dichlorophenol	1650	1520		ug/Kg		92	61 - 120
2,4-Dimethylphenol	1650	1470		ug/Kg		89	59 - 120
2,4-Dinitrophenol	3300	1840		ug/Kg		56	41 - 146
2,4-Dinitrotoluene	1650	1530		ug/Kg		93	63 - 120
2,6-Dinitrotoluene	1650	1570		ug/Kg		95	66 - 120
2-Chloronaphthalene	1650	1540		ug/Kg		93	57 - 120
2-Chlorophenol	1650	1320		ug/Kg		80	53 - 120
2-Methylphenol	1650	1380		ug/Kg		84	54 - 120
2-Methylnaphthalene	1650	1460		ug/Kg		89	59 - 120
2-Nitroaniline	1650	1530		ug/Kg		93	61 - 120
2-Nitrophenol	1650	1400		ug/Kg		85	56 - 120
3,3'-Dichlorobenzidine	3300	2610		ug/Kg		79	54 - 120
3-Nitroaniline	1650	1220		ug/Kg		74	48 - 120
4,6-Dinitro-2-methylphenol	3300	3020		ug/Kg		91	49 - 122
4-Bromophenyl phenyl ether	1650	1600		ug/Kg		97	58 - 120
4-Chloro-3-methylphenol	1650	1530		ug/Kg		93	61 - 120
4-Chloroaniline	1650	1160		ug/Kg		70	38 - 120
4-Chlorophenyl phenyl ether	1650	1580		ug/Kg		96	63 - 124
4-Methylphenol	1650	1410		ug/Kg		86	55 - 120
4-Nitroaniline	1650	1450		ug/Kg		88	56 - 120
4-Nitrophenol	3300	3000		ug/Kg		91	43 - 147
Acenaphthene	1650	1540		ug/Kg		94	62 - 120
Acenaphthylene	1650	1670		ug/Kg		101	58 - 121
Acetophenone	1650	1350		ug/Kg		82	54 - 120
Anthracene	1650	1630		ug/Kg		99	62 - 120
Atrazine	3300	3110		ug/Kg		94	60 - 127
Benzaldehyde	3300	2060		ug/Kg		62	10 - 150
Benzo[a]anthracene	1650	1560		ug/Kg		95	65 - 120
Benzo[a]pyrene	1650	1650		ug/Kg		100	64 - 120
Benzo[b]fluoranthene	1650	1600		ug/Kg		97	64 - 120
Benzo[g,h,i]perylene	1650	1680		ug/Kg		102	45 - 145
Benzo[k]fluoranthene	1650	1690		ug/Kg		102	65 - 120
Bis(2-chloroethoxy)methane	1650	1450		ug/Kg		88	55 - 120
Bis(2-chloroethyl)ether	1650	1330		ug/Kg		80	45 - 120
Bis(2-ethylhexyl) phthalate	1650	1780		ug/Kg		108	61 - 133
Butyl benzyl phthalate	1650	1670		ug/Kg		101	61 - 129
Caprolactam	3300	2930		ug/Kg		89	47 - 120
Carbazole	1650	1610		ug/Kg		98	65 - 120
Chrysene	1650	1600		ug/Kg		97	64 - 120
Dibenz(a,h)anthracene	1650	1690		ug/Kg		103	54 - 132
Di-n-butyl phthalate	1650	1670		ug/Kg		101	58 - 130
Di-n-octyl phthalate	1650	1740		ug/Kg		106	57 - 133
Dibenzofuran	1650	1620		ug/Kg		98	63 - 120
Diethyl phthalate	1650	1650		ug/Kg		100	66 - 120

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-455529/2-A

Matrix: Solid

Analysis Batch: 455698

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 455529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl phthalate	1650	1650		ug/Kg		100	65 - 124
Fluoranthene	1650	1600		ug/Kg		97	62 - 120
Fluorene	1650	1610		ug/Kg		98	63 - 120
Hexachlorobenzene	1650	1590		ug/Kg		97	60 - 120
Hexachlorobutadiene	1650	1410		ug/Kg		86	45 - 120
Hexachlorocyclopentadiene	1650	1520		ug/Kg		92	47 - 120
Hexachloroethane	1650	1250		ug/Kg		76	41 - 120
Indeno[1,2,3-cd]pyrene	1650	1690		ug/Kg		102	56 - 134
Isophorone	1650	1540		ug/Kg		93	56 - 120
N-Nitrosodi-n-propylamine	1650	1400		ug/Kg		85	52 - 120
N-Nitrosodiphenylamine	1650	1650		ug/Kg		100	51 - 128
Naphthalene	1650	1430		ug/Kg		86	55 - 120
Nitrobenzene	1650	1400		ug/Kg		85	54 - 120
Pentachlorophenol	3300	3230		ug/Kg		98	51 - 120
Phenanthrene	1650	1550		ug/Kg		94	60 - 120
Phenol	1650	1360		ug/Kg		83	53 - 120
Pyrene	1650	1670		ug/Kg		101	61 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	86		53 - 120
Phenol-d5 (Surr)	84		54 - 120
p-Terphenyl-d14 (Surr)	112		65 - 121
2,4,6-Tribromophenol (Surr)	97		54 - 120
2-Fluorobiphenyl	95		60 - 120
2-Fluorophenol (Surr)	81		52 - 120

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 480-455500/1-A

Matrix: Solid

Analysis Batch: 455659

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 455500

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		1.6	0.32	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
4,4'-DDE	ND		1.6	0.35	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
4,4'-DDT	ND		1.6	0.38	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
Aldrin	ND		1.6	0.40	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
alpha-BHC	ND		1.6	0.30	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
cis-Chlordane	ND		1.6	0.82	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
beta-BHC	ND		1.6	0.30	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
delta-BHC	ND		1.6	0.31	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
Dieldrin	ND		1.6	0.39	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
Endosulfan I	ND		1.6	0.32	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
Endosulfan II	ND		1.6	0.30	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
Endosulfan sulfate	ND		1.6	0.31	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
Endrin	ND		1.6	0.33	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
Endrin aldehyde	ND		1.6	0.42	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
Endrin ketone	ND		1.6	0.40	ug/Kg		01/17/19 11:49	01/18/19 17:05	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 480-455500/1-A

Matrix: Solid

Analysis Batch: 455659

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 455500

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
gamma-BHC (Lindane)	ND		1.6	0.30	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
trans-Chlordane	ND		1.6	0.52	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
Heptachlor	ND		1.6	0.36	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
Heptachlor epoxide	ND		1.6	0.42	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
Methoxychlor	ND		1.6	0.34	ug/Kg		01/17/19 11:49	01/18/19 17:05	1
Toxaphene	ND		16	9.6	ug/Kg		01/17/19 11:49	01/18/19 17:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	109		45 - 120	01/17/19 11:49	01/18/19 17:05	1
Tetrachloro-m-xylene	73		30 - 124	01/17/19 11:49	01/18/19 17:05	1

Lab Sample ID: LCS 480-455500/2-A

Matrix: Solid

Analysis Batch: 455659

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 455500

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	16.4	16.8		ug/Kg		103	56 - 120
4,4'-DDE	16.4	14.3		ug/Kg		87	44 - 120
4,4'-DDT	16.4	15.8		ug/Kg		96	38 - 120
Aldrin	16.4	13.0		ug/Kg		79	38 - 120
alpha-BHC	16.4	12.6		ug/Kg		77	39 - 120
cis-Chlordane	16.4	14.8		ug/Kg		90	47 - 120
beta-BHC	16.4	12.3		ug/Kg		75	40 - 120
delta-BHC	16.4	13.1		ug/Kg		80	45 - 120
Dieldrin	16.4	15.3		ug/Kg		93	58 - 120
Endosulfan I	16.4	14.6		ug/Kg		89	49 - 120
Endosulfan II	16.4	17.0		ug/Kg		104	55 - 120
Endosulfan sulfate	16.4	14.3		ug/Kg		87	49 - 124
Endrin	16.4	15.7		ug/Kg		96	58 - 120
Endrin aldehyde	16.4	16.4		ug/Kg		100	37 - 121
Endrin ketone	16.4	16.9		ug/Kg		103	46 - 123
gamma-BHC (Lindane)	16.4	12.9		ug/Kg		79	50 - 120
trans-Chlordane	16.4	13.3		ug/Kg		81	48 - 120
Heptachlor	16.4	14.3		ug/Kg		87	50 - 120
Heptachlor epoxide	16.4	14.7		ug/Kg		90	50 - 120
Methoxychlor	16.4	17.2		ug/Kg		105	58 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	101		45 - 120
Tetrachloro-m-xylene	71		30 - 124

Lab Sample ID: LCSD 480-455500/3-A

Matrix: Solid

Analysis Batch: 455659

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 455500

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
4,4'-DDD	16.4	16.9		ug/Kg		103	56 - 120	1	18
4,4'-DDE	16.4	15.3		ug/Kg		93	44 - 120	7	16

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 480-455500/3-A
Matrix: Solid
Analysis Batch: 455659

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 455500

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDT	16.4	14.2		ug/Kg		87	38 - 120	10	17
Aldrin	16.4	14.5		ug/Kg		88	38 - 120	11	24
alpha-BHC	16.4	13.3		ug/Kg		81	39 - 120	6	19
cis-Chlordane	16.4	15.8		ug/Kg		97	47 - 120	7	13
beta-BHC	16.4	12.6		ug/Kg		77	40 - 120	3	17
delta-BHC	16.4	14.5		ug/Kg		89	45 - 120	10	14
Dieldrin	16.4	16.2		ug/Kg		99	58 - 120	6	13
Endosulfan I	16.4	15.7		ug/Kg		96	49 - 120	7	16
Endosulfan II	16.4	17.6		ug/Kg		108	55 - 120	4	17
Endosulfan sulfate	16.4	15.7		ug/Kg		96	49 - 124	9	14
Endrin	16.4	16.6		ug/Kg		101	58 - 120	6	19
Endrin aldehyde	16.4	16.0		ug/Kg		98	37 - 121	2	23
Endrin ketone	16.4	16.5		ug/Kg		101	46 - 123	3	14
gamma-BHC (Lindane)	16.4	13.0		ug/Kg		79	50 - 120	1	20
trans-Chlordane	16.4	14.2		ug/Kg		87	48 - 120	6	14
Heptachlor	16.4	13.7		ug/Kg		84	50 - 120	4	16
Heptachlor epoxide	16.4	16.0		ug/Kg		98	50 - 120	9	17
Methoxychlor	16.4	15.7		ug/Kg		96	58 - 133	9	14

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
DCB Decachlorobiphenyl	105		45 - 120
Tetrachloro-m-xylene	77		30 - 124

Method: 8151A - Herbicides (GC)

Lab Sample ID: MB 480-455501/1-A
Matrix: Solid
Analysis Batch: 455991

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 455501

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-T	ND		16	5.3	ug/Kg		01/17/19 11:54	01/22/19 08:02	1
2,4-D	ND		16	10	ug/Kg		01/17/19 11:54	01/22/19 08:02	1
Silvex (2,4,5-TP)	ND		16	5.9	ug/Kg		01/17/19 11:54	01/22/19 08:02	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenylacetic acid	65		28 - 129	01/17/19 11:54	01/22/19 08:02	1

Lab Sample ID: LCS 480-455501/2-A
Matrix: Solid
Analysis Batch: 455991

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 455501

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4,5-T	65.7	49.7		ug/Kg		76	41 - 120
2,4-D	65.7	50.1		ug/Kg		76	40 - 120
Silvex (2,4,5-TP)	65.7	48.5		ug/Kg		74	39 - 125

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Method: 8151A - Herbicides (GC) (Continued)

Lab Sample ID: LCS 480-455501/2-A
Matrix: Solid
Analysis Batch: 455991

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 455501

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4-Dichlorophenylacetic acid	70		28 - 129

Lab Sample ID: LCSD 480-455501/3-A
Matrix: Solid
Analysis Batch: 455991

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 455501

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4,5-T	65.3	42.6		ug/Kg		65	41 - 120	15	50
2,4-D	65.3	46.3		ug/Kg		71	40 - 120	8	50
Silvex (2,4,5-TP)	65.3	42.8		ug/Kg		65	39 - 125	12	50

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4-Dichlorophenylacetic acid	62		28 - 129

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-455541/1-A
Matrix: Solid
Analysis Batch: 455926

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 455541

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		10	4.4	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Antimony	0.409	J	15.0	0.40	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Arsenic	ND		2.0	0.40	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Barium	ND		0.50	0.11	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Beryllium	ND		0.20	0.028	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Cadmium	ND		0.20	0.030	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Calcium	10.19	J	49.9	3.3	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Chromium	ND		0.50	0.20	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Cobalt	ND		0.50	0.050	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Copper	ND		1.0	0.21	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Iron	ND		10	3.5	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Lead	ND		1.0	0.24	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Magnesium	2.97	J	20.0	0.93	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Manganese	ND		0.20	0.032	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Nickel	0.323	J	5.0	0.23	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Potassium	30.08		29.9	20.0	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Selenium	ND		4.0	0.40	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Silver	ND		0.60	0.20	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Thallium	ND		6.0	0.30	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Vanadium	ND		0.50	0.11	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Zinc	ND		2.0	0.64	mg/Kg		01/18/19 10:20	01/21/19 10:35	1

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-455541/1-A

Matrix: Solid

Analysis Batch: 455934

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 455541

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sodium	50.10	J	140	13.0	mg/Kg		01/18/19 10:20	01/21/19 12:35	1

Lab Sample ID: LCSSRM 480-455541/2-A

Matrix: Solid

Analysis Batch: 455926

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 455541

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	10100	7627		mg/Kg		75.5	41.6 - 123.8
Antimony	145	41.25		mg/Kg		28.4	10.0 - 137.2
Arsenic	171	129.7		mg/Kg		75.9	66.1 - 122.2
Barium	272	200.4		mg/Kg		73.7	71.7 - 119.5
Beryllium	102	77.53		mg/Kg		76.0	71.8 - 119.6
Cadmium	225	162.0		mg/Kg		72.0	70.2 - 117.3
Calcium	5190	3674		mg/Kg		70.8	66.7 - 117.0
Chromium	144	104.2		mg/Kg		72.4	66.1 - 122.9
Cobalt	48.8	43.03		mg/Kg		88.2	74.0 - 123.4
Copper	174	133.9		mg/Kg		77.0	71.3 - 119.0
Iron	15000	11380		mg/Kg		75.9	32.9 - 154.7
Lead	111	105.6		mg/Kg		95.2	71.0 - 128.8
Magnesium	2570	1896		mg/Kg		73.8	56.4 - 125.3
Manganese	232	211.6		mg/Kg		91.2	71.1 - 125.4
Nickel	98.3	84.17		mg/Kg		85.6	65.4 - 121.1
Potassium	2420	1808		mg/Kg		74.7	49.2 - 117.8
Selenium	206	155.8		mg/Kg		75.6	63.6 - 122.3
Silver	45.5	33.72		mg/Kg		74.1	66.2 - 124.2
Sodium	252	232.4		mg/Kg		92.2	41.7 - 131.7
Thallium	167	142.2		mg/Kg		85.1	65.9 - 121.0
Vanadium	61.8	47.39		mg/Kg		76.7	52.1 - 131.6
Zinc	207	165.9		mg/Kg		80.1	67.1 - 125.1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-456040/1-A
Matrix: Solid
Analysis Batch: 456102

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 456040

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.018	0.0075	mg/Kg		01/22/19 11:10	01/22/19 13:53	1

Lab Sample ID: LCSSRM 480-456040/2-A ^10
Matrix: Solid
Analysis Batch: 456102

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 456040

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	12.0	11.15		mg/Kg		92.9	57.3 - 133.3



QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

GC/MS VOA

Analysis Batch: 455409

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147988-1	SB-1 (3-5)	Total/NA	Solid	8260C	455426
480-147988-4	SB-1 (5-10)	Total/NA	Solid	8260C	455426
MB 480-455426/2-A	Method Blank	Total/NA	Solid	8260C	455426
LCS 480-455426/1-A	Lab Control Sample	Total/NA	Solid	8260C	455426

Prep Batch: 455426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147988-1	SB-1 (3-5)	Total/NA	Solid	5035A_L	
480-147988-4	SB-1 (5-10)	Total/NA	Solid	5035A_L	
MB 480-455426/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-455426/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

GC/MS Semi VOA

Prep Batch: 455529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147988-2	SB-1 (5-10)	Total/NA	Solid	3550C	
MB 480-455529/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-455529/2-A	Lab Control Sample	Total/NA	Solid	3550C	

Analysis Batch: 455698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147988-2	SB-1 (5-10)	Total/NA	Solid	8270D	455529
MB 480-455529/1-A	Method Blank	Total/NA	Solid	8270D	455529
LCS 480-455529/2-A	Lab Control Sample	Total/NA	Solid	8270D	455529

GC Semi VOA

Prep Batch: 455500

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147988-2	SB-1 (5-10)	Total/NA	Solid	3550C	
MB 480-455500/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-455500/2-A	Lab Control Sample	Total/NA	Solid	3550C	
LCSD 480-455500/3-A	Lab Control Sample Dup	Total/NA	Solid	3550C	

Prep Batch: 455501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147988-2	SB-1 (5-10)	Total/NA	Solid	8151A	
MB 480-455501/1-A	Method Blank	Total/NA	Solid	8151A	
LCS 480-455501/2-A	Lab Control Sample	Total/NA	Solid	8151A	
LCSD 480-455501/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	

Analysis Batch: 455659

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147988-2	SB-1 (5-10)	Total/NA	Solid	8081B	455500
MB 480-455500/1-A	Method Blank	Total/NA	Solid	8081B	455500
LCS 480-455500/2-A	Lab Control Sample	Total/NA	Solid	8081B	455500
LCSD 480-455500/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	455500

TestAmerica Buffalo

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

GC Semi VOA (Continued)

Analysis Batch: 455991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147988-2	SB-1 (5-10)	Total/NA	Solid	8151A	455501
MB 480-455501/1-A	Method Blank	Total/NA	Solid	8151A	455501
LCS 480-455501/2-A	Lab Control Sample	Total/NA	Solid	8151A	455501
LCSD 480-455501/3-A	Lab Control Sample Dup	Total/NA	Solid	8151A	455501

Metals

Prep Batch: 455541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147988-3	SB-1 (5-10)	Total/NA	Solid	3050B	
MB 480-455541/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-455541/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 455926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147988-3	SB-1 (5-10)	Total/NA	Solid	6010C	455541
MB 480-455541/1-A	Method Blank	Total/NA	Solid	6010C	455541
LCSSRM 480-455541/2-A	Lab Control Sample	Total/NA	Solid	6010C	455541

Analysis Batch: 455934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-455541/1-A	Method Blank	Total/NA	Solid	6010C	455541

Prep Batch: 456040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147988-3	SB-1 (5-10)	Total/NA	Solid	7471B	
MB 480-456040/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-456040/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 456102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147988-3	SB-1 (5-10)	Total/NA	Solid	7471B	456040
MB 480-456040/1-A	Method Blank	Total/NA	Solid	7471B	456040
LCSSRM 480-456040/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	456040

General Chemistry

Analysis Batch: 455518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147988-4	SB-1 (5-10)	Total/NA	Solid	Moisture	

Analysis Batch: 455654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147988-1	SB-1 (3-5)	Total/NA	Solid	Moisture	
480-147988-2	SB-1 (5-10)	Total/NA	Solid	Moisture	
480-147988-3	SB-1 (5-10)	Total/NA	Solid	Moisture	

TestAmerica Buffalo

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Client Sample ID: SB-1 (3-5)

Date Collected: 01/15/19 15:00

Date Received: 01/16/19 01:00

Lab Sample ID: 480-147988-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455654	01/18/19 09:46	KPK	TAL BUF

Client Sample ID: SB-1 (3-5)

Date Collected: 01/15/19 15:00

Date Received: 01/16/19 01:00

Lab Sample ID: 480-147988-1

Matrix: Solid

Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			455426	01/17/19 07:40	AMM	TAL BUF
Total/NA	Analysis	8260C		1	455409	01/17/19 14:52	AEM	TAL BUF

Client Sample ID: SB-1 (5-10)

Date Collected: 01/15/19 15:00

Date Received: 01/16/19 01:00

Lab Sample ID: 480-147988-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455654	01/18/19 09:46	KPK	TAL BUF

Client Sample ID: SB-1 (5-10)

Date Collected: 01/15/19 15:00

Date Received: 01/16/19 01:00

Lab Sample ID: 480-147988-2

Matrix: Solid

Percent Solids: 69.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			455529	01/17/19 14:43	ATG	TAL BUF
Total/NA	Analysis	8270D		1	455698	01/18/19 20:41	RJS	TAL BUF
Total/NA	Prep	3550C			455500	01/17/19 11:49	SGD	TAL BUF
Total/NA	Analysis	8081B		1	455659	01/18/19 18:04	JLS	TAL BUF
Total/NA	Prep	8151A			455501	01/17/19 11:54	SGD	TAL BUF
Total/NA	Analysis	8151A		1	455991	01/22/19 10:01	MAN	TAL BUF

Client Sample ID: SB-1 (5-10)

Date Collected: 01/15/19 15:00

Date Received: 01/16/19 01:00

Lab Sample ID: 480-147988-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455654	01/18/19 09:46	KPK	TAL BUF

Client Sample ID: SB-1 (5-10)

Date Collected: 01/15/19 15:00

Date Received: 01/16/19 01:00

Lab Sample ID: 480-147988-3

Matrix: Solid

Percent Solids: 69.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			455541	01/18/19 10:20	JMP	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Client Sample ID: SB-1 (5-10)

Lab Sample ID: 480-147988-3

Date Collected: 01/15/19 15:00

Matrix: Solid

Date Received: 01/16/19 01:00

Percent Solids: 69.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6010C		1	455926	01/21/19 11:24	LMH	TAL BUF
Total/NA	Prep	7471B			456040	01/22/19 11:10	BMB	TAL BUF
Total/NA	Analysis	7471B		1	456102	01/22/19 14:05	BMB	TAL BUF

Client Sample ID: SB-1 (5-10)

Lab Sample ID: 480-147988-4

Date Collected: 01/15/19 15:00

Matrix: Solid

Date Received: 01/16/19 01:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455518	01/17/19 13:54	AMM	TAL BUF

Client Sample ID: SB-1 (5-10)

Lab Sample ID: 480-147988-4

Date Collected: 01/15/19 15:00

Matrix: Solid

Date Received: 01/16/19 01:00

Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			455426	01/17/19 07:40	AMM	TAL BUF
Total/NA	Analysis	8260C		1	455409	01/17/19 15:17	AEM	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



Method Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8151A	Herbicides (GC)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF
3050B	Preparation, Metals	SW846	TAL BUF
3550C	Ultrasonic Extraction	SW846	TAL BUF
5035A_L	Closed System Purge and Trap	SW846	TAL BUF
7471B	Preparation, Mercury	SW846	TAL BUF
8151A	Extraction (Herbicides)	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147988-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-147988-1	SB-1 (3-5)	Solid	01/15/19 15:00	01/16/19 01:00
480-147988-2	SB-1 (5-10)	Solid	01/15/19 15:00	01/16/19 01:00
480-147988-3	SB-1 (5-10)	Solid	01/15/19 15:00	01/16/19 01:00
480-147988-4	SB-1 (5-10)	Solid	01/15/19 15:00	01/16/19 01:00

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Client Information Client Contact: Matt Walker Company: C&S Engineers, Inc. Address: 489 Col. Eileen Collins Blvd City: Syracuse State, Zip: NY, 13212 Phone: 315-703-4323(Tel) Email: mwalker@csos.com Project Name: Former Zip Mini Meat Site Site:		Lab Pk. Name: Stone, Judy L. E-Mail: judy.stone@testamerica.com		Contract Information Contract #: 48018328 SSC# #:		COI No.: 480-122675-28123.3 Page #: 1 of 1 Job #:			
Order Requested: TAT Requested (days): 5 PO #: Purchase Order Requested NO:		Analysis is Requested  480-147988 Chain of Custody		Special Instructions/Notes: Total Number of Containers: X		Preservation Codes: A-HCL B-NaOH C-Zn Acetate D-Nitro Acid E-NH4SO4 F-MeOH G-Arsonic H-Arsenic Acid I-Ice Water J-DI Water K-EDTA L-EDA Other:			
Sample Identification SB-1 (3-5) SB-1 (5-10) SB-1 (5-10) SB-1 (5-10) Risk Assessment 1-15-19 RE		Sample Data 1/15/19 1500 C 1/15/19 1500 C 1/15/19 1500 C 1/15/19 1500 C 1/15/19 4830		Sample Type Solid Solid Solid Solid Solid Solid Solid Solid		Field Filtered Sample (Yes or No) N		Priming Method (Yes or No) X	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Biological		Deliverable Requested: I, II, III, N, Other (specify)		Empty IRI Requisitioned by:		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Dispose By Lab <input type="checkbox"/> Archive For _____ Months			
Requisitioned by: Matthew Kendall Requisitioned for: RETIHLIB Requisitioned by:		Date: 1-15-19 15:45 Date/Time: 1-15-19 19:00 Date/Time:		Received by: RETIHLIB Received by:		Method of Shipment: Date/Time: 1-15-19 15:45 Date/Time: 01-16-19 0100 Date/Time:			
Custody Seals Intact: Δ Yes Δ No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 1.2 4.3		Company: RETIHLIB Company: RETIHLIB Company: RETIHLIB		Ver: 06/04/2016			



Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-147988-1

Login Number: 147988

List Source: TestAmerica Buffalo

List Number: 1

Creator: Velickovic, Zoran

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	COC for log in # 147988 was originally logged in under # 147921
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	Freezer 1/16/19@6:00AM
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	C&S Engineers, Inc.
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-147994-1

Client Project/Site: Former Zip Zip Mini Mart Site

For:

C&S Engineers, Inc.

499 Col. Eileen Collins Blvd

Syracuse, New York 13212

Attn: Matt Walker



Authorized for release by:

1/24/2019 2:29:09 PM

Judy Stone, Senior Project Manager

(484)685-0868

judy.stone@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: C&S Engineers, Inc.
Project/Site: Former Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Job ID: 480-147994-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-147994-1

Receipt

The samples were received on 1/17/2019 12:16 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8° C.

GC/MS VOA

Method(s) 8260C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-455567 and analytical batch 480-455561 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits. The following samples are impacted: SB - 6 (10' - 15') (480-147994-20[MS]) and SB - 6 (10' - 15') (480-147994-20[MSD]).

Method(s) 8260C: The following sample was analyzed using medium level soil analysis due to the nature of the sample matrix: SB - 4 (10' - 15') (480-147994-10). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample was analyzed using medium level soil analysis and diluted to bring the concentration of target analytes within the calibration range: SB - 3 (15' - 20') (480-147994-8). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample was analyzed using medium level soil analysis to bring the concentration of target analytes within the calibration range: SB - 3 (10' - 15') (480-147994-7). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base surrogate to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: SB - 6 (5' - 10') (480-147994-18). These results have been reported and qualified.

Method(s) 8270D: The following sample was diluted due to color and appearance: SB - 4 (5' - 10') (480-147994-12). Elevated reporting limits (RL) are provided.

Method(s) 8270D: The Method Blank (MB) for preparation batch 480-455529 and analytical batch 480-455698 recovered outside control limits for the following surrogate: p-Terphenyl-d14. This surrogate is biased high and no detections were found for associated analytes in the following affected samples: SB - 2 (0' - 5') (480-147994-2), SB - 3 (0' - 5') (480-147994-6), SB - 4 (5' - 10') (480-147994-12), SB - 5 (5' - 10') (480-147994-14) and SB - 6 (5' - 10') (480-147994-18). Therefore, the data has been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010C: The method blank for preparation batch 480-455541 and analytical batch 480-455926 contained Total Potassium above the reporting limit (RL). Associated samples SB - 2 (0' - 5') (480-147994-1), SB - 3 (0' - 5') (480-147994-5), SB - 4 (5' - 10') (480-147994-11), SB - 5 (5' - 10') (480-147994-13) and SB - 6 (5' - 10') (480-147994-17) were not re-extracted and/or re-analyzed because results were greater than 10X the value found in the method blank.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 2 (0' - 5')

Lab Sample ID: 480-147994-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	11600	B	11.4	5.0	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.53	J	17.1	0.46	mg/Kg	1	☼	6010C	Total/NA
Arsenic	6.4		2.3	0.46	mg/Kg	1	☼	6010C	Total/NA
Barium	95.2		0.57	0.13	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.46		0.23	0.032	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.15	J	0.23	0.034	mg/Kg	1	☼	6010C	Total/NA
Calcium	76100	B	57.0	3.8	mg/Kg	1	☼	6010C	Total/NA
Chromium	19.2		0.57	0.23	mg/Kg	1	☼	6010C	Total/NA
Cobalt	8.4		0.57	0.057	mg/Kg	1	☼	6010C	Total/NA
Copper	19.0		1.1	0.24	mg/Kg	1	☼	6010C	Total/NA
Iron	14700		11.4	4.0	mg/Kg	1	☼	6010C	Total/NA
Lead	15.2		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Magnesium	43600	B	22.8	1.1	mg/Kg	1	☼	6010C	Total/NA
Manganese	313		0.23	0.036	mg/Kg	1	☼	6010C	Total/NA
Nickel	33.3	B	5.7	0.26	mg/Kg	1	☼	6010C	Total/NA
Potassium	4600	B	34.2	22.8	mg/Kg	1	☼	6010C	Total/NA
Sodium	236	B	160	14.8	mg/Kg	1	☼	6010C	Total/NA
Vanadium	20.8		0.57	0.13	mg/Kg	1	☼	6010C	Total/NA
Zinc	30.1		2.3	0.73	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.19		0.022	0.0090	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB - 2 (0' - 5')

Lab Sample ID: 480-147994-2

No Detections.

Client Sample ID: SB - 2 (5' - 10')

Lab Sample ID: 480-147994-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	60		25	4.2	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: SB - 2 (10' - 15')

Lab Sample ID: 480-147994-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	10	J	23	3.9	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: SB - 3 (0' - 5')

Lab Sample ID: 480-147994-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	11000	B	10.8	4.7	mg/Kg	1	☼	6010C	Total/NA
Antimony	0.55	J	16.1	0.43	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.3		2.2	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	85.4		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.44		0.22	0.030	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.17	J	0.22	0.032	mg/Kg	1	☼	6010C	Total/NA
Calcium	66900	B	53.8	3.5	mg/Kg	1	☼	6010C	Total/NA
Chromium	17.3		0.54	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	7.5		0.54	0.054	mg/Kg	1	☼	6010C	Total/NA
Copper	18.8		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Iron	13600		10.8	3.8	mg/Kg	1	☼	6010C	Total/NA
Lead	10.0		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Magnesium	36300	B	21.5	1.0	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 3 (0' - 5') (Continued)

Lab Sample ID: 480-147994-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	303		0.22	0.034	mg/Kg	1	☼	6010C	Total/NA
Nickel	26.7	B	5.4	0.25	mg/Kg	1	☼	6010C	Total/NA
Potassium	4090	B	32.3	21.5	mg/Kg	1	☼	6010C	Total/NA
Sodium	318	B	151	14.0	mg/Kg	1	☼	6010C	Total/NA
Vanadium	20.1		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	26.1		2.2	0.69	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.032		0.021	0.0086	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB - 3 (0' - 5')

Lab Sample ID: 480-147994-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bis(2-ethylhexyl) phthalate	90	J	190	65	ug/Kg	1	☼	8270D	Total/NA

Client Sample ID: SB - 3 (10' - 15')

Lab Sample ID: 480-147994-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1100		51	9.7	ug/Kg	1	☼	8260C	Total/NA
Cyclohexane	110		51	11	ug/Kg	1	☼	8260C	Total/NA
Ethylbenzene	750		51	15	ug/Kg	1	☼	8260C	Total/NA
Isopropylbenzene	18	J	51	7.6	ug/Kg	1	☼	8260C	Total/NA
Methylcyclohexane	27	J	51	24	ug/Kg	1	☼	8260C	Total/NA
Styrene	34	J	51	12	ug/Kg	1	☼	8260C	Total/NA
Toluene	580		51	14	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	3900		100	28	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: SB - 3 (15' - 20')

Lab Sample ID: 480-147994-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1000		190	36	ug/Kg	4	☼	8260C	Total/NA
Cyclohexane	410		190	42	ug/Kg	4	☼	8260C	Total/NA
Ethylbenzene	3600		190	55	ug/Kg	4	☼	8260C	Total/NA
Isopropylbenzene	160	J	190	29	ug/Kg	4	☼	8260C	Total/NA
Methylcyclohexane	120	J	190	89	ug/Kg	4	☼	8260C	Total/NA
Methylene Chloride	68	J	190	38	ug/Kg	4	☼	8260C	Total/NA
Toluene	260		190	51	ug/Kg	4	☼	8260C	Total/NA
Xylenes, Total	20000		380	110	ug/Kg	4	☼	8260C	Total/NA

Client Sample ID: SB - 4 (0' - 5')

Lab Sample ID: 480-147994-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	14	J	19	3.2	ug/Kg	1	☼	8260C	Total/NA
Benzene	10		3.8	0.19	ug/Kg	1	☼	8260C	Total/NA
Methyl tert-butyl ether	54		3.8	0.38	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: SB - 4 (10' - 15')

Lab Sample ID: 480-147994-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	37	J	56	11	ug/Kg	1	☼	8260C	Total/NA
Cyclohexane	340		56	12	ug/Kg	1	☼	8260C	Total/NA
Ethylbenzene	18	J	56	16	ug/Kg	1	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 4 (10' - 15') (Continued)

Lab Sample ID: 480-147994-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Isopropylbenzene	120		56	8.4	ug/Kg	1	☼	8260C	Total/NA
Methylcyclohexane	260		56	26	ug/Kg	1	☼	8260C	Total/NA
Methylene Chloride	32	J	56	11	ug/Kg	1	☼	8260C	Total/NA
Xylenes, Total	43	J	110	31	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: SB - 4 (5' - 10')

Lab Sample ID: 480-147994-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	10500	B	10.8	4.8	mg/Kg	1	☼	6010C	Total/NA
Arsenic	3.1		2.2	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	114		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.40		0.22	0.030	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.16	J	0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Calcium	85100	B	54.2	3.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	20.3		0.54	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	8.6		0.54	0.054	mg/Kg	1	☼	6010C	Total/NA
Copper	25.8		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Iron	12100		10.8	3.8	mg/Kg	1	☼	6010C	Total/NA
Lead	19.3		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Magnesium	60900	B	108	5.0	mg/Kg	5	☼	6010C	Total/NA
Manganese	279		0.22	0.035	mg/Kg	1	☼	6010C	Total/NA
Nickel	43.2	B	5.4	0.25	mg/Kg	1	☼	6010C	Total/NA
Potassium	4200	B	32.5	21.7	mg/Kg	1	☼	6010C	Total/NA
Sodium	227	B	152	14.1	mg/Kg	1	☼	6010C	Total/NA
Vanadium	19.5		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	53.3		2.2	0.69	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.015	J	0.021	0.0085	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB - 4 (5' - 10')

Lab Sample ID: 480-147994-12

No Detections.

Client Sample ID: SB - 5 (5' - 10')

Lab Sample ID: 480-147994-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	10300	B	11.1	4.9	mg/Kg	1	☼	6010C	Total/NA
Arsenic	4.4		2.2	0.44	mg/Kg	1	☼	6010C	Total/NA
Barium	98.9		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.40		0.22	0.031	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.12	J	0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Calcium	87900	B	55.5	3.7	mg/Kg	1	☼	6010C	Total/NA
Chromium	16.0		0.56	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	5.3		0.56	0.056	mg/Kg	1	☼	6010C	Total/NA
Copper	15.2		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Iron	12300		11.1	3.9	mg/Kg	1	☼	6010C	Total/NA
Lead	4.6		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Magnesium	49200	B	22.2	1.0	mg/Kg	1	☼	6010C	Total/NA
Manganese	279		0.22	0.036	mg/Kg	1	☼	6010C	Total/NA
Nickel	25.2	B	5.6	0.26	mg/Kg	1	☼	6010C	Total/NA
Potassium	4240	B	33.3	22.2	mg/Kg	1	☼	6010C	Total/NA
Sodium	211	B	156	14.4	mg/Kg	1	☼	6010C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 5 (5' - 10') (Continued)

Lab Sample ID: 480-147994-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	17.4		0.56	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	24.8		2.2	0.71	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.016	J	0.022	0.0089	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB - 5 (5' - 10')

Lab Sample ID: 480-147994-14

No Detections.

Client Sample ID: SB - 5 (5' - 10')

Lab Sample ID: 480-147994-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	13	J	21	3.5	ug/Kg	1	☼	8260C	Total/NA
Chloroform	0.31	J	4.2	0.26	ug/Kg	1	☼	8260C	Total/NA
Methyl tert-butyl ether	5.3		4.2	0.41	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: SB - 5 (10' - 15')

Lab Sample ID: 480-147994-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	15	J	22	3.7	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: SB - 6 (5' - 10')

Lab Sample ID: 480-147994-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	11300	B	10.8	4.8	mg/Kg	1	☼	6010C	Total/NA
Arsenic	2.5		2.2	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	91.8		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Beryllium	0.43		0.22	0.030	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.13	J	0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Calcium	90600	B	54.2	3.6	mg/Kg	1	☼	6010C	Total/NA
Chromium	20.2		0.54	0.22	mg/Kg	1	☼	6010C	Total/NA
Cobalt	6.8		0.54	0.054	mg/Kg	1	☼	6010C	Total/NA
Copper	11.5		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Iron	12100		10.8	3.8	mg/Kg	1	☼	6010C	Total/NA
Lead	5.2		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Magnesium	61100	B	108	5.0	mg/Kg	5	☼	6010C	Total/NA
Manganese	265		0.22	0.035	mg/Kg	1	☼	6010C	Total/NA
Nickel	29.1	B	5.4	0.25	mg/Kg	1	☼	6010C	Total/NA
Potassium	4690	B	32.5	21.7	mg/Kg	1	☼	6010C	Total/NA
Sodium	413	B	152	14.1	mg/Kg	1	☼	6010C	Total/NA
Vanadium	20.5		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Zinc	25.7		2.2	0.69	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.020	J	0.022	0.0091	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: SB - 6 (5' - 10')

Lab Sample ID: 480-147994-18

No Detections.

Client Sample ID: SB - 6 (5' - 10')

Lab Sample ID: 480-147994-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloroethane	0.75	J	4.6	0.23	ug/Kg	1	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 6 (5' - 10') (Continued)

Lab Sample ID: 480-147994-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	110		23	3.9	ug/Kg	1	☼	8260C	Total/NA
Methyl tert-butyl ether	2.0	J	4.6	0.45	ug/Kg	1	☼	8260C	Total/NA

Client Sample ID: SB - 6 (10' - 15')

Lab Sample ID: 480-147994-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	25		20	3.4	ug/Kg	1	☼	8260C	Total/NA
Methyl tert-butyl ether	5.2		4.0	0.40	ug/Kg	1	☼	8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 2 (0' - 5')

Lab Sample ID: 480-147994-1

Date Collected: 01/16/19 09:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 89.2

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11600	B	11.4	5.0	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Antimony	0.53	J	17.1	0.46	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Arsenic	6.4		2.3	0.46	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Barium	95.2		0.57	0.13	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Beryllium	0.46		0.23	0.032	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Cadmium	0.15	J	0.23	0.034	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Calcium	76100	B	57.0	3.8	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Chromium	19.2		0.57	0.23	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Cobalt	8.4		0.57	0.057	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Copper	19.0		1.1	0.24	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Iron	14700		11.4	4.0	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Lead	15.2		1.1	0.27	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Magnesium	43600	B	22.8	1.1	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Manganese	313		0.23	0.036	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Nickel	33.3	B	5.7	0.26	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Potassium	4600	B	34.2	22.8	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Selenium	ND		4.6	0.46	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Silver	ND		0.68	0.23	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Sodium	236	B	160	14.8	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Thallium	ND		6.8	0.34	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Vanadium	20.8		0.57	0.13	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1
Zinc	30.1		2.3	0.73	mg/Kg	☼	01/18/19 10:20	01/21/19 11:39	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.19		0.022	0.0090	mg/Kg	☼	01/22/19 11:10	01/22/19 14:07	1

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 2 (0' - 5')

Lab Sample ID: 480-147994-2

Date Collected: 01/16/19 09:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 84.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		200	29	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
bis (2-chloroisopropyl) ether	ND		200	40	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
2,4,5-Trichlorophenol	ND		200	54	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
2,4,6-Trichlorophenol	ND		200	40	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
2,4-Dichlorophenol	ND		200	21	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
2,4-Dimethylphenol	ND		200	48	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
2,4-Dinitrophenol	ND		1900	910	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
2,4-Dinitrotoluene	ND		200	41	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
2,6-Dinitrotoluene	ND		200	23	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
2-Chloronaphthalene	ND		200	33	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
2-Chlorophenol	ND		200	36	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
2-Methylphenol	ND		200	23	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
2-Methylnaphthalene	ND		200	40	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
2-Nitroaniline	ND		380	29	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
2-Nitrophenol	ND		200	56	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
3,3'-Dichlorobenzidine	ND		380	230	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
3-Nitroaniline	ND		380	55	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
4,6-Dinitro-2-methylphenol	ND		380	200	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
4-Bromophenyl phenyl ether	ND		200	28	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
4-Chloro-3-methylphenol	ND		200	49	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
4-Chloroaniline	ND		200	49	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
4-Chlorophenyl phenyl ether	ND		200	24	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
4-Methylphenol	ND		380	23	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
4-Nitroaniline	ND		380	100	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
4-Nitrophenol	ND		380	140	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Acenaphthene	ND		200	29	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Acenaphthylene	ND		200	26	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Acetophenone	ND		200	27	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Anthracene	ND		200	49	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Atrazine	ND		200	69	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Benzaldehyde	ND		200	160	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Benzo[a]anthracene	ND		200	20	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Benzo[a]pyrene	ND		200	29	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Benzo[b]fluoranthene	ND		200	31	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Benzo[g,h,i]perylene	ND		200	21	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Benzo[k]fluoranthene	ND		200	26	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Bis(2-chloroethoxy)methane	ND		200	42	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Bis(2-chloroethyl)ether	ND		200	26	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Bis(2-ethylhexyl) phthalate	ND		200	68	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Butyl benzyl phthalate	ND		200	33	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Caprolactam	ND		200	59	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Carbazole	ND		200	23	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Chrysene	ND		200	44	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Dibenz(a,h)anthracene	ND		200	35	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Di-n-butyl phthalate	ND		200	34	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Di-n-octyl phthalate	ND		200	23	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Dibenzofuran	ND		200	23	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Diethyl phthalate	ND		200	26	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1
Dimethyl phthalate	ND		200	23	ug/Kg	*	01/17/19 14:43	01/18/19 21:09	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 2 (0' - 5')

Lab Sample ID: 480-147994-2

Date Collected: 01/16/19 09:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 84.6

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		200	21	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
Fluorene	ND		200	23	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
Hexachlorobenzene	ND		200	27	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
Hexachlorobutadiene	ND		200	29	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
Hexachlorocyclopentadiene	ND		200	27	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
Hexachloroethane	ND		200	26	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
Indeno[1,2,3-cd]pyrene	ND		200	24	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
Isophorone	ND		200	42	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
N-Nitrosodi-n-propylamine	ND		200	34	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
N-Nitrosodiphenylamine	ND		200	160	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
Naphthalene	ND		200	26	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
Nitrobenzene	ND		200	22	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
Pentachlorophenol	ND		380	200	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
Phenanthrene	ND		200	29	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
Phenol	ND		200	30	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
Pyrene	ND		200	23	ug/Kg	☼	01/17/19 14:43	01/18/19 21:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	93		53 - 120				01/17/19 14:43	01/18/19 21:09	1
Phenol-d5 (Surr)	88		54 - 120				01/17/19 14:43	01/18/19 21:09	1
p-Terphenyl-d14 (Surr)	119		65 - 121				01/17/19 14:43	01/18/19 21:09	1
2,4,6-Tribromophenol (Surr)	94		54 - 120				01/17/19 14:43	01/18/19 21:09	1
2-Fluorobiphenyl	101		60 - 120				01/17/19 14:43	01/18/19 21:09	1
2-Fluorophenol (Surr)	87		52 - 120				01/17/19 14:43	01/18/19 21:09	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 2 (5' -10')

Lab Sample ID: 480-147994-3

Date Collected: 01/16/19 09:10

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 90.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
1,1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
2-Hexanone	ND		25	2.5	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Acetone	60		25	4.2	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Benzene	ND		5.0	0.25	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Bromoform	ND		5.0	2.5	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Bromomethane	ND		5.0	0.45	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Carbon disulfide	ND		5.0	2.5	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Chlorobenzene	ND		5.0	0.66	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Chloroethane	ND		5.0	1.1	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Chloroform	ND		5.0	0.31	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Chloromethane	ND		5.0	0.30	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Cyclohexane	ND		5.0	0.70	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Ethylbenzene	ND		5.0	0.35	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Methyl acetate	ND		25	3.0	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Methylene Chloride	ND		5.0	2.3	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Styrene	ND		5.0	0.25	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Toluene	ND		5.0	0.38	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Trichloroethene	ND		5.0	1.1	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Vinyl chloride	ND		5.0	0.61	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1
Xylenes, Total	ND		10	0.84	ug/Kg	*	01/17/19 05:30	01/18/19 03:39	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 2 (5' -10')

Lab Sample ID: 480-147994-3

Date Collected: 01/16/19 09:10

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 90.9

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Toluene-d8 (Surr)</i>	105		71 - 125	01/17/19 05:30	01/18/19 03:39	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	107		64 - 126	01/17/19 05:30	01/18/19 03:39	1
<i>4-Bromofluorobenzene (Surr)</i>	86		72 - 126	01/17/19 05:30	01/18/19 03:39	1
<i>Dibromofluoromethane (Surr)</i>	104		60 - 140	01/17/19 05:30	01/18/19 03:39	1

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Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 2 (10' -15')

Lab Sample ID: 480-147994-4

Date Collected: 01/16/19 09:20

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 89.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.6	0.34	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
1,1,2,2-Tetrachloroethane	ND		4.6	0.75	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
1,1,2-Trichloroethane	ND		4.6	0.60	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.6	1.1	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
1,1-Dichloroethane	ND		4.6	0.57	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
1,1-Dichloroethene	ND		4.6	0.57	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
1,2,4-Trichlorobenzene	ND		4.6	0.28	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
1,2-Dibromo-3-Chloropropane	ND		4.6	2.3	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
1,2-Dichlorobenzene	ND		4.6	0.36	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
1,2-Dichloroethane	ND		4.6	0.23	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
1,2-Dichloropropane	ND		4.6	2.3	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
1,3-Dichlorobenzene	ND		4.6	0.24	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
1,4-Dichlorobenzene	ND		4.6	0.65	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
2-Butanone (MEK)	ND		23	1.7	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
2-Hexanone	ND		23	2.3	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
4-Methyl-2-pentanone (MIBK)	ND		23	1.5	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Acetone	10	J	23	3.9	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Benzene	ND		4.6	0.23	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Bromodichloromethane	ND		4.6	0.62	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Bromoform	ND		4.6	2.3	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Bromomethane	ND		4.6	0.42	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Carbon disulfide	ND		4.6	2.3	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Carbon tetrachloride	ND		4.6	0.45	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Chlorobenzene	ND		4.6	0.61	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Dibromochloromethane	ND		4.6	0.59	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Chloroethane	ND		4.6	1.0	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Chloroform	ND		4.6	0.29	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Chloromethane	ND		4.6	0.28	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
cis-1,2-Dichloroethene	ND		4.6	0.59	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
cis-1,3-Dichloropropene	ND		4.6	0.67	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Cyclohexane	ND		4.6	0.65	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Dichlorodifluoromethane	ND		4.6	0.38	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Ethylbenzene	ND		4.6	0.32	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
1,2-Dibromoethane	ND		4.6	0.59	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Isopropylbenzene	ND		4.6	0.70	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Methyl acetate	ND		23	2.8	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Methyl tert-butyl ether	ND		4.6	0.45	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Methylcyclohexane	ND		4.6	0.70	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Methylene Chloride	ND		4.6	2.1	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Styrene	ND		4.6	0.23	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Tetrachloroethene	ND		4.6	0.62	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Toluene	ND		4.6	0.35	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
trans-1,2-Dichloroethene	ND		4.6	0.48	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
trans-1,3-Dichloropropene	ND		4.6	2.0	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Trichloroethene	ND		4.6	1.0	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Trichlorofluoromethane	ND		4.6	0.44	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Vinyl chloride	ND		4.6	0.57	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1
Xylenes, Total	ND		9.3	0.78	ug/Kg	☼	01/17/19 05:30	01/18/19 04:05	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 2 (10' -15')

Lab Sample ID: 480-147994-4

Date Collected: 01/16/19 09:20

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 89.9

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Toluene-d8 (Surr)	101		71 - 125	01/17/19 05:30	01/18/19 04:05	1
1,2-Dichloroethane-d4 (Surr)	106		64 - 126	01/17/19 05:30	01/18/19 04:05	1
4-Bromofluorobenzene (Surr)	99		72 - 126	01/17/19 05:30	01/18/19 04:05	1
Dibromofluoromethane (Surr)	102		60 - 140	01/17/19 05:30	01/18/19 04:05	1

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 3 (0' - 5')

Lab Sample ID: 480-147994-5

Date Collected: 01/16/19 10:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 91.0

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11000	B	10.8	4.7	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Antimony	0.55	J	16.1	0.43	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Arsenic	3.3		2.2	0.43	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Barium	85.4		0.54	0.12	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Beryllium	0.44		0.22	0.030	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Cadmium	0.17	J	0.22	0.032	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Calcium	66900	B	53.8	3.5	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Chromium	17.3		0.54	0.22	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Cobalt	7.5		0.54	0.054	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Copper	18.8		1.1	0.23	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Iron	13600		10.8	3.8	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Lead	10.0		1.1	0.26	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Magnesium	36300	B	21.5	1.0	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Manganese	303		0.22	0.034	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Nickel	26.7	B	5.4	0.25	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Potassium	4090	B	32.3	21.5	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Selenium	ND		4.3	0.43	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Silver	ND		0.65	0.22	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Sodium	318	B	151	14.0	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Thallium	ND		6.5	0.32	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Vanadium	20.1		0.54	0.12	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1
Zinc	26.1		2.2	0.69	mg/Kg	☼	01/18/19 10:20	01/21/19 11:43	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.032		0.021	0.0086	mg/Kg	☼	01/22/19 11:10	01/22/19 14:08	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 3 (0' - 5')

Lab Sample ID: 480-147994-6

Date Collected: 01/16/19 10:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 86.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		190	28	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
bis (2-chloroisopropyl) ether	ND		190	38	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
2,4,5-Trichlorophenol	ND		190	52	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
2,4,6-Trichlorophenol	ND		190	38	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
2,4-Dichlorophenol	ND		190	20	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
2,4-Dimethylphenol	ND		190	46	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
2,4-Dinitrophenol	ND		1900	880	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
2,4-Dinitrotoluene	ND		190	39	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
2,6-Dinitrotoluene	ND		190	23	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
2-Chloronaphthalene	ND		190	32	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
2-Chlorophenol	ND		190	35	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
2-Methylphenol	ND		190	23	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
2-Methylnaphthalene	ND		190	38	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
2-Nitroaniline	ND		370	28	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
2-Nitrophenol	ND		190	54	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
3,3'-Dichlorobenzidine	ND		370	230	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
3-Nitroaniline	ND		370	53	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
4,6-Dinitro-2-methylphenol	ND		370	190	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
4-Bromophenyl phenyl ether	ND		190	27	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
4-Chloro-3-methylphenol	ND		190	47	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
4-Chloroaniline	ND		190	47	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
4-Chlorophenyl phenyl ether	ND		190	24	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
4-Methylphenol	ND		370	23	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
4-Nitroaniline	ND		370	100	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
4-Nitrophenol	ND		370	130	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Acenaphthene	ND		190	28	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Acenaphthylene	ND		190	25	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Acetophenone	ND		190	26	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Anthracene	ND		190	47	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Atrazine	ND		190	66	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Benzaldehyde	ND		190	150	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Benzo[a]anthracene	ND		190	19	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Benzo[a]pyrene	ND		190	28	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Benzo[b]fluoranthene	ND		190	30	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Benzo[g,h,i]perylene	ND		190	20	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Benzo[k]fluoranthene	ND		190	25	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Bis(2-chloroethoxy)methane	ND		190	41	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Bis(2-chloroethyl)ether	ND		190	25	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Bis(2-ethylhexyl) phthalate	90	J	190	65	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Butyl benzyl phthalate	ND		190	32	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Caprolactam	ND		190	57	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Carbazole	ND		190	23	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Chrysene	ND		190	43	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Dibenz(a,h)anthracene	ND		190	34	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Di-n-butyl phthalate	ND		190	33	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Di-n-octyl phthalate	ND		190	23	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Dibenzofuran	ND		190	23	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Diethyl phthalate	ND		190	25	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Dimethyl phthalate	ND		190	23	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 3 (0' - 5')

Lab Sample ID: 480-147994-6

Date Collected: 01/16/19 10:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 86.8

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		190	20	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Fluorene	ND		190	23	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Hexachlorobenzene	ND		190	26	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Hexachlorobutadiene	ND		190	28	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Hexachlorocyclopentadiene	ND		190	26	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Hexachloroethane	ND		190	25	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Indeno[1,2,3-cd]pyrene	ND		190	24	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Isophorone	ND		190	41	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
N-Nitrosodi-n-propylamine	ND		190	33	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
N-Nitrosodiphenylamine	ND		190	160	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Naphthalene	ND		190	25	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Nitrobenzene	ND		190	21	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Pentachlorophenol	ND		370	190	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Phenanthrene	ND		190	28	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Phenol	ND		190	29	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Pyrene	ND		190	23	ug/Kg	☼	01/17/19 14:43	01/18/19 19:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	91		53 - 120				01/17/19 14:43	01/18/19 19:44	1
Phenol-d5 (Surr)	90		54 - 120				01/17/19 14:43	01/18/19 19:44	1
p-Terphenyl-d14 (Surr)	120		65 - 121				01/17/19 14:43	01/18/19 19:44	1
2,4,6-Tribromophenol (Surr)	93		54 - 120				01/17/19 14:43	01/18/19 19:44	1
2-Fluorobiphenyl	98		60 - 120				01/17/19 14:43	01/18/19 19:44	1
2-Fluorophenol (Surr)	86		52 - 120				01/17/19 14:43	01/18/19 19:44	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB -3 (10' - 15')

Lab Sample ID: 480-147994-7

Date Collected: 01/16/19 10:20

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 85.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		51	14	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
1,1,1,2,2-Tetrachloroethane	ND		51	8.3	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
1,1,2-Trichloroethane	ND		51	11	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		51	25	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
1,1-Dichloroethane	ND		51	16	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
1,1-Dichloroethene	ND		51	18	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
1,2,4-Trichlorobenzene	ND		51	19	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
1,2-Dibromo-3-Chloropropane	ND		51	25	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
1,2-Dichlorobenzene	ND		51	13	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
1,2-Dichloroethane	ND		51	21	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
1,2-Dichloropropane	ND		51	8.2	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
1,3-Dichlorobenzene	ND		51	14	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
1,4-Dichlorobenzene	ND		51	7.1	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
2-Butanone (MEK)	ND		250	150	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
2-Hexanone	ND		250	100	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
4-Methyl-2-pentanone (MIBK)	ND		250	16	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Acetone	ND		250	210	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Benzene	1100		51	9.7	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Bromodichloromethane	ND		51	10	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Bromoform	ND		51	25	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Bromomethane	ND		51	11	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Carbon disulfide	ND		51	23	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Carbon tetrachloride	ND		51	13	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Chlorobenzene	ND		51	6.7	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Dibromochloromethane	ND		51	25	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Chloroethane	ND		51	11	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Chloroform	ND		51	35	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Chloromethane	ND		51	12	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
cis-1,2-Dichloroethene	ND		51	14	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
cis-1,3-Dichloropropene	ND		51	12	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Cyclohexane	110		51	11	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Dichlorodifluoromethane	ND		51	22	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Ethylbenzene	750		51	15	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
1,2-Dibromoethane	ND		51	8.9	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Isopropylbenzene	18 J		51	7.6	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Methyl acetate	ND		250	24	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Methyl tert-butyl ether	ND		51	19	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Methylcyclohexane	27 J		51	24	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Methylene Chloride	ND		51	10	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Styrene	34 J		51	12	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Tetrachloroethene	ND		51	6.8	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Toluene	580		51	14	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
trans-1,2-Dichloroethene	ND		51	12	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
trans-1,3-Dichloropropene	ND		51	5.0	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Trichloroethene	ND		51	14	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Trichlorofluoromethane	ND		51	24	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Vinyl chloride	ND		51	17	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1
Xylenes, Total	3900		100	28	ug/Kg	*	01/21/19 08:33	01/21/19 18:50	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB -3 (10' - 15')

Lab Sample ID: 480-147994-7

Date Collected: 01/16/19 10:20

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 85.5

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Toluene-d8 (Surr)</i>	100		50 - 149	01/21/19 08:33	01/21/19 18:50	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	105		53 - 146	01/21/19 08:33	01/21/19 18:50	1
<i>4-Bromofluorobenzene (Surr)</i>	101		49 - 148	01/21/19 08:33	01/21/19 18:50	1
<i>Dibromofluoromethane (Surr)</i>	95		60 - 140	01/21/19 08:33	01/21/19 18:50	1

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Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 3 (15' - 20')

Lab Sample ID: 480-147994-8

Date Collected: 01/16/19 10:20

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 93.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		190	53	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
1,1,1,2-Tetrachloroethane	ND		190	31	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
1,1,2-Trichloroethane	ND		190	40	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		190	95	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
1,1-Dichloroethane	ND		190	59	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
1,1-Dichloroethene	ND		190	66	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
1,2,4-Trichlorobenzene	ND		190	72	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
1,2-Dibromo-3-Chloropropane	ND		190	95	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
1,2-Dichlorobenzene	ND		190	49	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
1,2-Dichloroethane	ND		190	78	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
1,2-Dichloropropane	ND		190	31	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
1,3-Dichlorobenzene	ND		190	51	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
1,4-Dichlorobenzene	ND		190	27	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
2-Butanone (MEK)	ND		950	570	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
2-Hexanone	ND		950	390	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
4-Methyl-2-pentanone (MIBK)	ND		950	61	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Acetone	ND		950	780	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Benzene	1000		190	36	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Bromodichloromethane	ND		190	38	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Bromoform	ND		190	95	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Bromomethane	ND		190	42	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Carbon disulfide	ND		190	87	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Carbon tetrachloride	ND		190	49	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Chlorobenzene	ND		190	25	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Dibromochloromethane	ND		190	92	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Chloroethane	ND		190	40	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Chloroform	ND		190	130	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Chloromethane	ND		190	45	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
cis-1,2-Dichloroethene	ND		190	53	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
cis-1,3-Dichloropropene	ND		190	46	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Cyclohexane	410		190	42	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Dichlorodifluoromethane	ND		190	83	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Ethylbenzene	3600		190	55	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
1,2-Dibromoethane	ND		190	33	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Isopropylbenzene	160 J		190	29	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Methyl acetate	ND		950	91	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Methyl tert-butyl ether	ND		190	72	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Methylcyclohexane	120 J		190	89	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Methylene Chloride	68 J		190	38	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Styrene	ND		190	46	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Tetrachloroethene	ND		190	26	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Toluene	260		190	51	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
trans-1,2-Dichloroethene	ND		190	45	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
trans-1,3-Dichloropropene	ND		190	19	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Trichloroethene	ND		190	53	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Trichlorofluoromethane	ND		190	89	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Vinyl chloride	ND		190	64	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4
Xylenes, Total	20000		380	110	ug/Kg	☼	01/21/19 08:33	01/21/19 18:23	4

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 3 (15' - 20')

Lab Sample ID: 480-147994-8

Date Collected: 01/16/19 10:20

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 93.6

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Toluene-d8 (Surr)	98		50 - 149	01/21/19 08:33	01/21/19 18:23	4
1,2-Dichloroethane-d4 (Surr)	101		53 - 146	01/21/19 08:33	01/21/19 18:23	4
4-Bromofluorobenzene (Surr)	102		49 - 148	01/21/19 08:33	01/21/19 18:23	4
Dibromofluoromethane (Surr)	94		60 - 140	01/21/19 08:33	01/21/19 18:23	4

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 4 (0' - 5')

Lab Sample ID: 480-147994-9

Date Collected: 01/16/19 11:45

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 89.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.8	0.28	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
1,1,2,2-Tetrachloroethane	ND		3.8	0.62	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
1,1,2-Trichloroethane	ND		3.8	0.50	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.8	0.87	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
1,1-Dichloroethane	ND		3.8	0.47	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
1,1-Dichloroethene	ND		3.8	0.47	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
1,2,4-Trichlorobenzene	ND		3.8	0.23	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
1,2-Dibromo-3-Chloropropane	ND		3.8	1.9	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
1,2-Dichlorobenzene	ND		3.8	0.30	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
1,2-Dichloroethane	ND		3.8	0.19	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
1,2-Dichloropropane	ND		3.8	1.9	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
1,3-Dichlorobenzene	ND		3.8	0.20	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
1,4-Dichlorobenzene	ND		3.8	0.54	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
2-Butanone (MEK)	ND		19	1.4	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
2-Hexanone	ND		19	1.9	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
4-Methyl-2-pentanone (MIBK)	ND		19	1.3	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Acetone	14	J	19	3.2	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Benzene	10		3.8	0.19	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Bromodichloromethane	ND		3.8	0.51	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Bromoform	ND		3.8	1.9	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Bromomethane	ND		3.8	0.34	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Carbon disulfide	ND		3.8	1.9	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Carbon tetrachloride	ND		3.8	0.37	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Chlorobenzene	ND		3.8	0.50	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Dibromochloromethane	ND		3.8	0.49	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Chloroethane	ND		3.8	0.86	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Chloroform	ND		3.8	0.24	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Chloromethane	ND		3.8	0.23	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
cis-1,2-Dichloroethene	ND		3.8	0.49	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
cis-1,3-Dichloropropene	ND		3.8	0.55	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Cyclohexane	ND		3.8	0.54	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Dichlorodifluoromethane	ND		3.8	0.32	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Ethylbenzene	ND		3.8	0.26	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
1,2-Dibromoethane	ND		3.8	0.49	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Isopropylbenzene	ND		3.8	0.58	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Methyl acetate	ND		19	2.3	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Methyl tert-butyl ether	54		3.8	0.38	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Methylcyclohexane	ND		3.8	0.58	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Methylene Chloride	ND		3.8	1.8	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Styrene	ND		3.8	0.19	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Tetrachloroethene	ND		3.8	0.51	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Toluene	ND		3.8	0.29	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
trans-1,2-Dichloroethene	ND		3.8	0.39	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
trans-1,3-Dichloropropene	ND		3.8	1.7	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Trichloroethene	ND		3.8	0.84	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Trichlorofluoromethane	ND		3.8	0.36	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Vinyl chloride	ND		3.8	0.47	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1
Xylenes, Total	ND		7.6	0.64	ug/Kg	☼	01/17/19 05:30	01/18/19 04:31	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 4 (0' - 5')

Lab Sample ID: 480-147994-9

Date Collected: 01/16/19 11:45

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 89.5

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Toluene-d8 (Surr)</i>	105		71 - 125	01/17/19 05:30	01/18/19 04:31	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	104		64 - 126	01/17/19 05:30	01/18/19 04:31	1
<i>4-Bromofluorobenzene (Surr)</i>	87		72 - 126	01/17/19 05:30	01/18/19 04:31	1
<i>Dibromofluoromethane (Surr)</i>	101		60 - 140	01/17/19 05:30	01/18/19 04:31	1

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Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 4 (10' - 15')

Lab Sample ID: 480-147994-10

Date Collected: 01/16/19 11:50

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 91.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		56	16	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
1,1,2,2-Tetrachloroethane	ND		56	9.1	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
1,1,2-Trichloroethane	ND		56	12	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		56	28	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
1,1-Dichloroethane	ND		56	17	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
1,1-Dichloroethene	ND		56	19	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
1,2,4-Trichlorobenzene	ND		56	21	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
1,2-Dibromo-3-Chloropropane	ND		56	28	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
1,2-Dichlorobenzene	ND		56	14	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
1,2-Dichloroethane	ND		56	23	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
1,2-Dichloropropane	ND		56	9.1	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
1,3-Dichlorobenzene	ND		56	15	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
1,4-Dichlorobenzene	ND		56	7.8	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
2-Butanone (MEK)	ND		280	170	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
2-Hexanone	ND		280	110	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
4-Methyl-2-pentanone (MIBK)	ND		280	18	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Acetone	ND		280	230	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Benzene	37	J	56	11	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Bromodichloromethane	ND		56	11	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Bromoform	ND		56	28	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Bromomethane	ND		56	12	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Carbon disulfide	ND		56	25	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Carbon tetrachloride	ND		56	14	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Chlorobenzene	ND		56	7.4	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Dibromochloromethane	ND		56	27	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Chloroethane	ND		56	12	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Chloroform	ND		56	38	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Chloromethane	ND		56	13	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
cis-1,2-Dichloroethene	ND		56	15	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
cis-1,3-Dichloropropene	ND		56	13	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Cyclohexane	340		56	12	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Dichlorodifluoromethane	ND		56	24	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Ethylbenzene	18	J	56	16	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
1,2-Dibromoethane	ND		56	9.8	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Isopropylbenzene	120		56	8.4	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Methyl acetate	ND		280	27	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Methyl tert-butyl ether	ND		56	21	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Methylcyclohexane	260		56	26	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Methylene Chloride	32	J	56	11	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Styrene	ND		56	13	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Tetrachloroethene	ND		56	7.5	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Toluene	ND		56	15	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
trans-1,2-Dichloroethene	ND		56	13	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
trans-1,3-Dichloropropene	ND		56	5.5	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Trichloroethene	ND		56	16	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Trichlorofluoromethane	ND		56	26	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Vinyl chloride	ND		56	19	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1
Xylenes, Total	43	J	110	31	ug/Kg	☼	01/21/19 08:33	01/21/19 17:56	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 4 (10' - 15')

Lab Sample ID: 480-147994-10

Date Collected: 01/16/19 11:50

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 91.5

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Toluene-d8 (Surr)	98		50 - 149	01/21/19 08:33	01/21/19 17:56	1
1,2-Dichloroethane-d4 (Surr)	106		53 - 146	01/21/19 08:33	01/21/19 17:56	1
4-Bromofluorobenzene (Surr)	103		49 - 148	01/21/19 08:33	01/21/19 17:56	1
Dibromofluoromethane (Surr)	94		60 - 140	01/21/19 08:33	01/21/19 17:56	1

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 4 (5' - 10')

Lab Sample ID: 480-147994-11

Date Collected: 01/16/19 12:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 92.1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10500	B	10.8	4.8	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Antimony	ND		16.3	0.43	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Arsenic	3.1		2.2	0.43	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Barium	114		0.54	0.12	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Beryllium	0.40		0.22	0.030	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Cadmium	0.16	J	0.22	0.033	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Calcium	85100	B	54.2	3.6	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Chromium	20.3		0.54	0.22	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Cobalt	8.6		0.54	0.054	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Copper	25.8		1.1	0.23	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Iron	12100		10.8	3.8	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Lead	19.3		1.1	0.26	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Magnesium	60900	B	108	5.0	mg/Kg	☼	01/18/19 10:20	01/22/19 10:47	5
Manganese	279		0.22	0.035	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Nickel	43.2	B	5.4	0.25	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Potassium	4200	B	32.5	21.7	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Selenium	ND		4.3	0.43	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Silver	ND		0.65	0.22	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Sodium	227	B	152	14.1	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Thallium	ND		6.5	0.33	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Vanadium	19.5		0.54	0.12	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1
Zinc	53.3		2.2	0.69	mg/Kg	☼	01/18/19 10:20	01/21/19 11:47	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.015	J	0.021	0.0085	mg/Kg	☼	01/22/19 11:10	01/22/19 14:09	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB -4 (5' - 10')

Lab Sample ID: 480-147994-12

Date Collected: 01/16/19 12:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 88.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		940	140	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
bis (2-chloroisopropyl) ether	ND		940	190	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
2,4,5-Trichlorophenol	ND		940	260	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
2,4,6-Trichlorophenol	ND		940	190	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
2,4-Dichlorophenol	ND		940	100	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
2,4-Dimethylphenol	ND		940	230	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
2,4-Dinitrophenol	ND		9200	4400	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
2,4-Dinitrotoluene	ND		940	190	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
2,6-Dinitrotoluene	ND		940	110	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
2-Chloronaphthalene	ND		940	160	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
2-Chlorophenol	ND		940	170	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
2-Methylphenol	ND		940	110	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
2-Methylnaphthalene	ND		940	190	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
2-Nitroaniline	ND		1800	140	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
2-Nitrophenol	ND		940	270	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
3,3'-Dichlorobenzidine	ND		1800	1100	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
3-Nitroaniline	ND		1800	260	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
4,6-Dinitro-2-methylphenol	ND		1800	940	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
4-Bromophenyl phenyl ether	ND		940	130	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
4-Chloro-3-methylphenol	ND		940	230	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
4-Chloroaniline	ND		940	230	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
4-Chlorophenyl phenyl ether	ND		940	120	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
4-Methylphenol	ND		1800	110	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
4-Nitroaniline	ND		1800	490	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
4-Nitrophenol	ND		1800	660	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Acenaphthene	ND		940	140	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Acenaphthylene	ND		940	120	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Acetophenone	ND		940	130	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Anthracene	ND		940	230	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Atrazine	ND		940	330	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Benzaldehyde	ND		940	750	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Benzo[a]anthracene	ND		940	94	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Benzo[a]pyrene	ND		940	140	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Benzo[b]fluoranthene	ND		940	150	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Benzo[g,h,i]perylene	ND		940	100	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Benzo[k]fluoranthene	ND		940	120	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Bis(2-chloroethoxy)methane	ND		940	200	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Bis(2-chloroethyl)ether	ND		940	120	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Bis(2-ethylhexyl) phthalate	ND		940	320	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Butyl benzyl phthalate	ND		940	160	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Caprolactam	ND		940	280	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Carbazole	ND		940	110	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Chrysene	ND		940	210	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Dibenz(a,h)anthracene	ND		940	170	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Di-n-butyl phthalate	ND		940	160	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Di-n-octyl phthalate	ND		940	110	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Dibenzofuran	ND		940	110	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Diethyl phthalate	ND		940	120	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5
Dimethyl phthalate	ND		940	110	ug/Kg	*	01/17/19 14:43	01/18/19 21:38	5

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB -4 (5' - 10')

Lab Sample ID: 480-147994-12

Date Collected: 01/16/19 12:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 88.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		940	100	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
Fluorene	ND		940	110	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
Hexachlorobenzene	ND		940	130	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
Hexachlorobutadiene	ND		940	140	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
Hexachlorocyclopentadiene	ND		940	130	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
Hexachloroethane	ND		940	120	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
Indeno[1,2,3-cd]pyrene	ND		940	120	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
Isophorone	ND		940	200	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
N-Nitrosodi-n-propylamine	ND		940	160	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
N-Nitrosodiphenylamine	ND		940	770	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
Naphthalene	ND		940	120	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
Nitrobenzene	ND		940	110	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
Pentachlorophenol	ND		1800	940	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
Phenanthrene	ND		940	140	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
Phenol	ND		940	140	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
Pyrene	ND		940	110	ug/Kg	☼	01/17/19 14:43	01/18/19 21:38	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	85		53 - 120				01/17/19 14:43	01/18/19 21:38	5
Phenol-d5 (Surr)	86		54 - 120				01/17/19 14:43	01/18/19 21:38	5
p-Terphenyl-d14 (Surr)	118		65 - 121				01/17/19 14:43	01/18/19 21:38	5
2,4,6-Tribromophenol (Surr)	72		54 - 120				01/17/19 14:43	01/18/19 21:38	5
2-Fluorobiphenyl	99		60 - 120				01/17/19 14:43	01/18/19 21:38	5
2-Fluorophenol (Surr)	86		52 - 120				01/17/19 14:43	01/18/19 21:38	5

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 5 (5' - 10')

Lab Sample ID: 480-147994-13

Date Collected: 01/16/19 13:45

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 90.4

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	10300	B	11.1	4.9	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Antimony	ND		16.7	0.44	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Arsenic	4.4		2.2	0.44	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Barium	98.9		0.56	0.12	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Beryllium	0.40		0.22	0.031	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Cadmium	0.12	J	0.22	0.033	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Calcium	87900	B	55.5	3.7	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Chromium	16.0		0.56	0.22	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Cobalt	5.3		0.56	0.056	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Copper	15.2		1.1	0.23	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Iron	12300		11.1	3.9	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Lead	4.6		1.1	0.27	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Magnesium	49200	B	22.2	1.0	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Manganese	279		0.22	0.036	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Nickel	25.2	B	5.6	0.26	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Potassium	4240	B	33.3	22.2	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Selenium	ND		4.4	0.44	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Silver	ND		0.67	0.22	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Sodium	211	B	156	14.4	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Thallium	ND		6.7	0.33	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Vanadium	17.4		0.56	0.12	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1
Zinc	24.8		2.2	0.71	mg/Kg	☼	01/18/19 10:20	01/21/19 11:51	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.022	0.0089	mg/Kg	☼	01/22/19 11:10	01/22/19 14:10	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 5 (5' - 10')

Lab Sample ID: 480-147994-14

Date Collected: 01/16/19 13:45

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 89.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		190	28	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
bis (2-chloroisopropyl) ether	ND		190	38	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
2,4,5-Trichlorophenol	ND		190	51	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
2,4,6-Trichlorophenol	ND		190	38	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
2,4-Dichlorophenol	ND		190	20	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
2,4-Dimethylphenol	ND		190	46	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
2,4-Dinitrophenol	ND		1800	870	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
2,4-Dinitrotoluene	ND		190	39	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
2,6-Dinitrotoluene	ND		190	22	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
2-Chloronaphthalene	ND		190	31	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
2-Chlorophenol	ND		190	34	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
2-Methylphenol	ND		190	22	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
2-Methylnaphthalene	ND		190	38	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
2-Nitroaniline	ND		370	28	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
2-Nitrophenol	ND		190	53	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
3,3'-Dichlorobenzidine	ND		370	220	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
3-Nitroaniline	ND		370	52	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
4,6-Dinitro-2-methylphenol	ND		370	190	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
4-Bromophenyl phenyl ether	ND		190	27	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
4-Chloro-3-methylphenol	ND		190	47	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
4-Chloroaniline	ND		190	47	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
4-Chlorophenyl phenyl ether	ND		190	23	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
4-Methylphenol	ND		370	22	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
4-Nitroaniline	ND		370	99	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
4-Nitrophenol	ND		370	130	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Acenaphthene	ND		190	28	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Acenaphthylene	ND		190	24	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Acetophenone	ND		190	26	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Anthracene	ND		190	47	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Atrazine	ND		190	66	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Benzaldehyde	ND		190	150	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Benzo[a]anthracene	ND		190	19	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Benzo[a]pyrene	ND		190	28	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Benzo[b]fluoranthene	ND		190	30	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Benzo[g,h,i]perylene	ND		190	20	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Benzo[k]fluoranthene	ND		190	24	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Bis(2-chloroethoxy)methane	ND		190	40	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Bis(2-chloroethyl)ether	ND		190	24	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Bis(2-ethylhexyl) phthalate	ND		190	64	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Butyl benzyl phthalate	ND		190	31	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Caprolactam	ND		190	57	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Carbazole	ND		190	22	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Chrysene	ND		190	42	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Dibenz(a,h)anthracene	ND		190	33	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Di-n-butyl phthalate	ND		190	32	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Di-n-octyl phthalate	ND		190	22	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Dibenzofuran	ND		190	22	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Diethyl phthalate	ND		190	24	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1
Dimethyl phthalate	ND		190	22	ug/Kg	*	01/17/19 14:43	01/18/19 22:06	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 5 (5' - 10')

Lab Sample ID: 480-147994-14

Date Collected: 01/16/19 13:45

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 89.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		190	20	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
Fluorene	ND		190	22	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
Hexachlorobenzene	ND		190	26	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
Hexachlorobutadiene	ND		190	28	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
Hexachlorocyclopentadiene	ND		190	26	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
Hexachloroethane	ND		190	24	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
Indeno[1,2,3-cd]pyrene	ND		190	23	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
Isophorone	ND		190	40	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
N-Nitrosodi-n-propylamine	ND		190	32	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
N-Nitrosodiphenylamine	ND		190	150	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
Naphthalene	ND		190	24	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
Nitrobenzene	ND		190	21	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
Pentachlorophenol	ND		370	190	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
Phenanthrene	ND		190	28	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
Phenol	ND		190	29	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
Pyrene	ND		190	22	ug/Kg	☼	01/17/19 14:43	01/18/19 22:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	88		53 - 120				01/17/19 14:43	01/18/19 22:06	1
Phenol-d5 (Surr)	86		54 - 120				01/17/19 14:43	01/18/19 22:06	1
p-Terphenyl-d14 (Surr)	118		65 - 121				01/17/19 14:43	01/18/19 22:06	1
2,4,6-Tribromophenol (Surr)	86		54 - 120				01/17/19 14:43	01/18/19 22:06	1
2-Fluorobiphenyl	97		60 - 120				01/17/19 14:43	01/18/19 22:06	1
2-Fluorophenol (Surr)	84		52 - 120				01/17/19 14:43	01/18/19 22:06	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 5 (5' - 10')

Lab Sample ID: 480-147994-15

Date Collected: 01/16/19 14:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 92.0

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.2	0.31	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
1,1,2,2-Tetrachloroethane	ND		4.2	0.68	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
1,1,2-Trichloroethane	ND		4.2	0.55	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.2	0.96	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
1,1-Dichloroethane	ND		4.2	0.51	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
1,1-Dichloroethene	ND		4.2	0.52	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
1,2,4-Trichlorobenzene	ND		4.2	0.26	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
1,2-Dibromo-3-Chloropropane	ND		4.2	2.1	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
1,2-Dichlorobenzene	ND		4.2	0.33	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
1,2-Dichloroethane	ND		4.2	0.21	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
1,2-Dichloropropane	ND		4.2	2.1	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
1,3-Dichlorobenzene	ND		4.2	0.22	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
1,4-Dichlorobenzene	ND		4.2	0.59	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
2-Butanone (MEK)	ND		21	1.5	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
2-Hexanone	ND		21	2.1	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
4-Methyl-2-pentanone (MIBK)	ND		21	1.4	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Acetone	13	J	21	3.5	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Benzene	ND		4.2	0.21	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Bromodichloromethane	ND		4.2	0.56	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Bromoform	ND		4.2	2.1	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Bromomethane	ND		4.2	0.38	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Carbon disulfide	ND		4.2	2.1	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Carbon tetrachloride	ND		4.2	0.41	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Chlorobenzene	ND		4.2	0.56	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Dibromochloromethane	ND		4.2	0.54	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Chloroethane	ND		4.2	0.95	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Chloroform	0.31	J	4.2	0.26	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Chloromethane	ND		4.2	0.25	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
cis-1,2-Dichloroethene	ND		4.2	0.54	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
cis-1,3-Dichloropropene	ND		4.2	0.61	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Cyclohexane	ND		4.2	0.59	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Dichlorodifluoromethane	ND		4.2	0.35	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Ethylbenzene	ND		4.2	0.29	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
1,2-Dibromoethane	ND		4.2	0.54	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Isopropylbenzene	ND		4.2	0.63	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Methyl acetate	ND		21	2.5	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Methyl tert-butyl ether	5.3		4.2	0.41	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Methylcyclohexane	ND		4.2	0.64	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Methylene Chloride	ND		4.2	1.9	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Styrene	ND		4.2	0.21	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Tetrachloroethene	ND		4.2	0.57	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Toluene	ND		4.2	0.32	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
trans-1,2-Dichloroethene	ND		4.2	0.43	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
trans-1,3-Dichloropropene	ND		4.2	1.9	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Trichloroethene	ND		4.2	0.93	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Trichlorofluoromethane	ND		4.2	0.40	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Vinyl chloride	ND		4.2	0.51	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1
Xylenes, Total	ND		8.4	0.71	ug/Kg	☼	01/17/19 05:30	01/18/19 04:57	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 5 (5' - 10')

Lab Sample ID: 480-147994-15

Date Collected: 01/16/19 14:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 92.0

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Toluene-d8 (Surr)	103		71 - 125	01/17/19 05:30	01/18/19 04:57	1
1,2-Dichloroethane-d4 (Surr)	108		64 - 126	01/17/19 05:30	01/18/19 04:57	1
4-Bromofluorobenzene (Surr)	93		72 - 126	01/17/19 05:30	01/18/19 04:57	1
Dibromofluoromethane (Surr)	104		60 - 140	01/17/19 05:30	01/18/19 04:57	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 5 (10' - 15')

Lab Sample ID: 480-147994-16

Date Collected: 01/16/19 14:15

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 90.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.4	0.32	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
1,1,1,2-Tetrachloroethane	ND		4.4	0.71	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
1,1,2-Trichloroethane	ND		4.4	0.57	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.4	1.0	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
1,1-Dichloroethane	ND		4.4	0.53	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
1,1-Dichloroethene	ND		4.4	0.53	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
1,2,4-Trichlorobenzene	ND		4.4	0.27	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
1,2-Dibromo-3-Chloropropane	ND		4.4	2.2	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
1,2-Dichlorobenzene	ND		4.4	0.34	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
1,2-Dichloroethane	ND		4.4	0.22	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
1,2-Dichloropropane	ND		4.4	2.2	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
1,3-Dichlorobenzene	ND		4.4	0.22	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
1,4-Dichlorobenzene	ND		4.4	0.61	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
2-Butanone (MEK)	ND		22	1.6	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
2-Hexanone	ND		22	2.2	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
4-Methyl-2-pentanone (MIBK)	ND		22	1.4	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Acetone	15	J	22	3.7	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Benzene	ND		4.4	0.21	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Bromodichloromethane	ND		4.4	0.58	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Bromoform	ND		4.4	2.2	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Bromomethane	ND		4.4	0.39	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Carbon disulfide	ND		4.4	2.2	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Carbon tetrachloride	ND		4.4	0.42	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Chlorobenzene	ND		4.4	0.58	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Dibromochloromethane	ND		4.4	0.56	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Chloroethane	ND		4.4	0.99	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Chloroform	ND		4.4	0.27	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Chloromethane	ND		4.4	0.26	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
cis-1,2-Dichloroethene	ND		4.4	0.56	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
cis-1,3-Dichloropropene	ND		4.4	0.63	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Cyclohexane	ND		4.4	0.61	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Dichlorodifluoromethane	ND		4.4	0.36	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Ethylbenzene	ND		4.4	0.30	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
1,2-Dibromoethane	ND		4.4	0.56	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Isopropylbenzene	ND		4.4	0.66	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Methyl acetate	ND		22	2.6	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Methyl tert-butyl ether	ND		4.4	0.43	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Methylcyclohexane	ND		4.4	0.66	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Methylene Chloride	ND		4.4	2.0	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Styrene	ND		4.4	0.22	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Tetrachloroethene	ND		4.4	0.59	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Toluene	ND		4.4	0.33	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
trans-1,2-Dichloroethene	ND		4.4	0.45	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
trans-1,3-Dichloropropene	ND		4.4	1.9	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Trichloroethene	ND		4.4	0.96	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Trichlorofluoromethane	ND		4.4	0.41	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Vinyl chloride	ND		4.4	0.53	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1
Xylenes, Total	ND		8.7	0.73	ug/Kg	☼	01/17/19 05:30	01/18/19 05:23	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 5 (10' - 15')

Lab Sample ID: 480-147994-16

Date Collected: 01/16/19 14:15

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 90.6

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Toluene-d8 (Surr)	103		71 - 125	01/17/19 05:30	01/18/19 05:23	1
1,2-Dichloroethane-d4 (Surr)	106		64 - 126	01/17/19 05:30	01/18/19 05:23	1
4-Bromofluorobenzene (Surr)	90		72 - 126	01/17/19 05:30	01/18/19 05:23	1
Dibromofluoromethane (Surr)	102		60 - 140	01/17/19 05:30	01/18/19 05:23	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 6 (5' -10')

Lab Sample ID: 480-147994-17

Date Collected: 01/16/19 14:30

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 89.5

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	11300	B	10.8	4.8	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Antimony	ND		16.3	0.43	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Arsenic	2.5		2.2	0.43	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Barium	91.8		0.54	0.12	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Beryllium	0.43		0.22	0.030	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Cadmium	0.13	J	0.22	0.033	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Calcium	90600	B	54.2	3.6	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Chromium	20.2		0.54	0.22	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Cobalt	6.8		0.54	0.054	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Copper	11.5		1.1	0.23	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Iron	12100		10.8	3.8	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Lead	5.2		1.1	0.26	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Magnesium	61100	B	108	5.0	mg/Kg	☼	01/18/19 10:20	01/22/19 10:51	5
Manganese	265		0.22	0.035	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Nickel	29.1	B	5.4	0.25	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Potassium	4690	B	32.5	21.7	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Selenium	ND		4.3	0.43	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Silver	ND		0.65	0.22	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Sodium	413	B	152	14.1	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Thallium	ND		6.5	0.33	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Vanadium	20.5		0.54	0.12	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1
Zinc	25.7		2.2	0.69	mg/Kg	☼	01/18/19 10:20	01/21/19 11:55	1

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.020	J	0.022	0.0091	mg/Kg	☼	01/22/19 11:10	01/22/19 14:12	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 6 (5' - 10')

Lab Sample ID: 480-147994-18

Date Collected: 01/16/19 14:30

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 88.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		190	27	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
bis (2-chloroisopropyl) ether	ND		190	37	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
2,4,5-Trichlorophenol	ND		190	50	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
2,4,6-Trichlorophenol	ND		190	37	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
2,4-Dichlorophenol	ND		190	20	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
2,4-Dimethylphenol	ND		190	45	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
2,4-Dinitrophenol	ND		1800	860	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
2,4-Dinitrotoluene	ND		190	38	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
2,6-Dinitrotoluene	ND		190	22	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
2-Chloronaphthalene	ND		190	31	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
2-Chlorophenol	ND		190	34	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
2-Methylphenol	ND		190	22	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
2-Methylnaphthalene	ND		190	37	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
2-Nitroaniline	ND		360	27	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
2-Nitrophenol	ND		190	53	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
3,3'-Dichlorobenzidine	ND		360	220	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
3-Nitroaniline	ND		360	52	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
4,6-Dinitro-2-methylphenol	ND		360	190	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
4-Bromophenyl phenyl ether	ND		190	26	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
4-Chloro-3-methylphenol	ND		190	46	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
4-Chloroaniline	ND		190	46	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
4-Chlorophenyl phenyl ether	ND		190	23	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
4-Methylphenol	ND		360	22	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
4-Nitroaniline	ND		360	98	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
4-Nitrophenol	ND		360	130	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Acenaphthene	ND		190	27	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Acenaphthylene	ND		190	24	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Acetophenone	ND		190	25	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Anthracene	ND		190	46	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Atrazine	ND		190	65	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Benzaldehyde	ND		190	150	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Benzo[a]anthracene	ND		190	19	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Benzo[a]pyrene	ND		190	27	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Benzo[b]fluoranthene	ND		190	30	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Benzo[g,h,i]perylene	ND		190	20	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Benzo[k]fluoranthene	ND		190	24	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Bis(2-chloroethoxy)methane	ND		190	40	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Bis(2-chloroethyl)ether	ND		190	24	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Bis(2-ethylhexyl) phthalate	ND		190	64	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Butyl benzyl phthalate	ND		190	31	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Caprolactam	ND		190	56	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Carbazole	ND		190	22	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Chrysene	ND		190	42	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Dibenz(a,h)anthracene	ND		190	33	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Di-n-butyl phthalate	ND		190	32	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Di-n-octyl phthalate	ND		190	22	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Dibenzofuran	ND		190	22	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Diethyl phthalate	ND		190	24	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1
Dimethyl phthalate	ND		190	22	ug/Kg	*	01/17/19 14:43	01/18/19 22:33	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 6 (5' - 10')

Lab Sample ID: 480-147994-18

Date Collected: 01/16/19 14:30

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 88.3

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		190	20	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
Fluorene	ND		190	22	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
Hexachlorobenzene	ND		190	25	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
Hexachlorobutadiene	ND		190	27	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
Hexachlorocyclopentadiene	ND		190	25	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
Hexachloroethane	ND		190	24	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
Indeno[1,2,3-cd]pyrene	ND		190	23	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
Isophorone	ND		190	40	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
N-Nitrosodi-n-propylamine	ND		190	32	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
N-Nitrosodiphenylamine	ND		190	150	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
Naphthalene	ND		190	24	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
Nitrobenzene	ND		190	21	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
Pentachlorophenol	ND		360	190	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
Phenanthrene	ND		190	27	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
Phenol	ND		190	29	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
Pyrene	ND		190	22	ug/Kg	☼	01/17/19 14:43	01/18/19 22:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	91		53 - 120				01/17/19 14:43	01/18/19 22:33	1
Phenol-d5 (Surr)	88		54 - 120				01/17/19 14:43	01/18/19 22:33	1
p-Terphenyl-d14 (Surr)	126	X	65 - 121				01/17/19 14:43	01/18/19 22:33	1
2,4,6-Tribromophenol (Surr)	90		54 - 120				01/17/19 14:43	01/18/19 22:33	1
2-Fluorobiphenyl	98		60 - 120				01/17/19 14:43	01/18/19 22:33	1
2-Fluorophenol (Surr)	85		52 - 120				01/17/19 14:43	01/18/19 22:33	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 6 (5' - 10')

Lab Sample ID: 480-147994-19

Date Collected: 01/16/19 15:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 88.9

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.6	0.33	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
1,1,2,2-Tetrachloroethane	ND		4.6	0.75	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
1,1,2-Trichloroethane	ND		4.6	0.60	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.6	1.0	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
1,1-Dichloroethane	ND		4.6	0.56	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
1,1-Dichloroethene	ND		4.6	0.56	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
1,2,4-Trichlorobenzene	ND		4.6	0.28	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
1,2-Dibromo-3-Chloropropane	ND		4.6	2.3	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
1,2-Dichlorobenzene	ND		4.6	0.36	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
1,2-Dichloroethane	0.75	J	4.6	0.23	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
1,2-Dichloropropane	ND		4.6	2.3	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
1,3-Dichlorobenzene	ND		4.6	0.24	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
1,4-Dichlorobenzene	ND		4.6	0.64	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
2-Butanone (MEK)	ND		23	1.7	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
2-Hexanone	ND		23	2.3	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
4-Methyl-2-pentanone (MIBK)	ND		23	1.5	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Acetone	110		23	3.9	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Benzene	ND		4.6	0.23	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Bromodichloromethane	ND		4.6	0.62	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Bromoform	ND		4.6	2.3	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Bromomethane	ND		4.6	0.41	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Carbon disulfide	ND		4.6	2.3	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Carbon tetrachloride	ND		4.6	0.45	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Chlorobenzene	ND		4.6	0.61	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Dibromochloromethane	ND		4.6	0.59	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Chloroethane	ND		4.6	1.0	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Chloroform	ND		4.6	0.28	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Chloromethane	ND		4.6	0.28	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
cis-1,2-Dichloroethene	ND		4.6	0.59	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
cis-1,3-Dichloropropene	ND		4.6	0.66	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Cyclohexane	ND		4.6	0.64	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Dichlorodifluoromethane	ND		4.6	0.38	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Ethylbenzene	ND		4.6	0.32	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
1,2-Dibromoethane	ND		4.6	0.59	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Isopropylbenzene	ND		4.6	0.69	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Methyl acetate	ND		23	2.8	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Methyl tert-butyl ether	2.0	J	4.6	0.45	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Methylcyclohexane	ND		4.6	0.70	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Methylene Chloride	ND		4.6	2.1	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Styrene	ND		4.6	0.23	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Tetrachloroethene	ND		4.6	0.62	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Toluene	ND		4.6	0.35	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
trans-1,2-Dichloroethene	ND		4.6	0.47	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
trans-1,3-Dichloropropene	ND		4.6	2.0	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Trichloroethene	ND		4.6	1.0	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Trichlorofluoromethane	ND		4.6	0.44	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Vinyl chloride	ND		4.6	0.56	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1
Xylenes, Total	ND		9.2	0.77	ug/Kg	☼	01/17/19 05:30	01/18/19 05:49	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 6 (5' - 10')

Lab Sample ID: 480-147994-19

Date Collected: 01/16/19 15:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 88.9

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Toluene-d8 (Surr)</i>	102		71 - 125	01/17/19 05:30	01/18/19 05:49	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	109		64 - 126	01/17/19 05:30	01/18/19 05:49	1
<i>4-Bromofluorobenzene (Surr)</i>	97		72 - 126	01/17/19 05:30	01/18/19 05:49	1
<i>Dibromofluoromethane (Surr)</i>	103		60 - 140	01/17/19 05:30	01/18/19 05:49	1

- 1
- 2
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Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 6 (10' - 15')

Lab Sample ID: 480-147994-20

Date Collected: 01/16/19 14:45

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 90.5

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.0	0.29	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
1,1,1,2,2-Tetrachloroethane	ND	F1	4.0	0.66	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
1,1,2-Trichloroethane	ND	F1	4.0	0.53	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.0	0.92	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
1,1-Dichloroethane	ND		4.0	0.49	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
1,1-Dichloroethene	ND		4.0	0.49	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
1,2,4-Trichlorobenzene	ND	F1	4.0	0.25	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
1,2-Dibromo-3-Chloropropane	ND	F1	4.0	2.0	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
1,2-Dichlorobenzene	ND	F1	4.0	0.32	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
1,2-Dichloroethane	ND	F1	4.0	0.20	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
1,2-Dichloropropane	ND		4.0	2.0	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
1,3-Dichlorobenzene	ND	F1	4.0	0.21	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
1,4-Dichlorobenzene	ND	F1	4.0	0.57	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
2-Butanone (MEK)	ND	F1	20	1.5	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
2-Hexanone	ND	F1	20	2.0	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
4-Methyl-2-pentanone (MIBK)	ND	F1	20	1.3	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Acetone	25		20	3.4	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Benzene	ND	F1	4.0	0.20	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Bromodichloromethane	ND	F1	4.0	0.54	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Bromoform	ND	F1	4.0	2.0	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Bromomethane	ND		4.0	0.36	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Carbon disulfide	ND		4.0	2.0	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Carbon tetrachloride	ND		4.0	0.39	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Chlorobenzene	ND	F1	4.0	0.53	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Dibromochloromethane	ND	F1	4.0	0.52	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Chloroethane	ND		4.0	0.91	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Chloroform	ND		4.0	0.25	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Chloromethane	ND		4.0	0.24	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
cis-1,2-Dichloroethene	ND	F1	4.0	0.52	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
cis-1,3-Dichloropropene	ND	F1	4.0	0.58	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Cyclohexane	ND	F1	4.0	0.57	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Dichlorodifluoromethane	ND		4.0	0.33	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Ethylbenzene	ND	F1	4.0	0.28	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
1,2-Dibromoethane	ND	F1	4.0	0.52	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Isopropylbenzene	ND	F1	4.0	0.61	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Methyl acetate	ND		20	2.4	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Methyl tert-butyl ether	5.2		4.0	0.40	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Methylcyclohexane	ND	F1	4.0	0.61	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Methylene Chloride	ND		4.0	1.9	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Styrene	ND	F1	4.0	0.20	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Tetrachloroethene	ND	F1	4.0	0.54	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Toluene	ND	F1	4.0	0.31	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
trans-1,2-Dichloroethene	ND	F1	4.0	0.42	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
trans-1,3-Dichloropropene	ND	F1	4.0	1.8	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Trichloroethene	ND	F1	4.0	0.89	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Trichlorofluoromethane	ND		4.0	0.38	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Vinyl chloride	ND		4.0	0.49	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1
Xylenes, Total	ND	F1	8.1	0.68	ug/Kg	☼	01/17/19 05:30	01/18/19 06:15	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 6 (10' - 15')

Lab Sample ID: 480-147994-20

Date Collected: 01/16/19 14:45

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 90.5

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
<i>Toluene-d8 (Surr)</i>	103		71 - 125	01/17/19 05:30	01/18/19 06:15	1
<i>1,2-Dichloroethane-d4 (Surr)</i>	107		64 - 126	01/17/19 05:30	01/18/19 06:15	1
<i>4-Bromofluorobenzene (Surr)</i>	92		72 - 126	01/17/19 05:30	01/18/19 06:15	1
<i>Dibromofluoromethane (Surr)</i>	102		60 - 140	01/17/19 05:30	01/18/19 06:15	1

- 1
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- 14
- 15

Surrogate Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (50-149)	DCA (53-146)	BFB (49-148)	DBFM (60-140)
480-147994-7	SB -3 (10' - 15')	100	105	101	95
480-147994-8	SB - 3 (15' - 20')	98	101	102	94
480-147994-10	SB - 4 (10' - 15')	98	106	103	94
LCS 480-455862/1-A	Lab Control Sample	97	108	104	104
MB 480-455862/2-A	Method Blank	101	105	103	93

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (71-125)	DCA (64-126)	BFB (72-126)	DBFM (60-140)
480-147994-3	SB - 2 (5' -10')	105	107	86	104
480-147994-4	SB - 2 (10' -15')	101	106	99	102
480-147994-9	SB - 4 (0' - 5')	105	104	87	101
480-147994-15	SB - 5 (5' - 10')	103	108	93	104
480-147994-16	SB - 5 (10' - 15')	103	106	90	102
480-147994-19	SB - 6 (5' - 10')	102	109	97	103
480-147994-20	SB - 6 (10' - 15')	103	107	92	102
480-147994-20 MS	SB - 6 (10' - 15')	101	98	97	102
480-147994-20 MSD	SB - 6 (10' - 15')	101	98	97	103
LCS 480-455567/1-A	Lab Control Sample	101	105	101	103
MB 480-455567/2-A	Method Blank	100	106	97	102

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (53-120)	PHL (54-120)	TPHd14 (65-121)	TBP (54-120)	FBP (60-120)	2FP (52-120)
480-147994-2	SB - 2 (0' - 5')	93	88	119	94	101	87
480-147994-6	SB - 3 (0' - 5')	91	90	120	93	98	86
480-147994-6 MS	SB - 3 (0' - 5')	83	79	111	98	93	76
480-147994-6 MSD	SB - 3 (0' - 5')	84	80	111	99	92	77
480-147994-12	SB - 4 (5' - 10')	85	86	118	72	99	86
480-147994-14	SB - 5 (5' - 10')	88	86	118	86	97	84
480-147994-18	SB - 6 (5' - 10')	91	88	126 X	90	98	85
LCS 480-455529/2-A	Lab Control Sample	86	84	112	97	95	81

TestAmerica Buffalo

Surrogate Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Matrix: Solid

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	NBZ (53-120)	PHL (54-120)	TPHd14 (65-121)	TBP (54-120)	FBP (60-120)	2FP (52-120)
MB 480-455529/1-A	Method Blank	89	86	128 X	92	97	83

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-455567/2-A

Matrix: Solid

Analysis Batch: 455561

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 455567

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
2-Hexanone	ND		25	2.5	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Acetone	ND		25	4.2	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Benzene	ND		5.0	0.25	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Bromoform	ND		5.0	2.5	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Bromomethane	ND		5.0	0.45	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Chloroethane	ND		5.0	1.1	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Chloroform	ND		5.0	0.31	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Chloromethane	ND		5.0	0.30	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Cyclohexane	ND		5.0	0.70	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Methyl acetate	ND		25	3.0	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Styrene	ND		5.0	0.25	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Toluene	ND		5.0	0.38	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Trichloroethene	ND		5.0	1.1	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		01/17/19 22:25	01/17/19 23:55	1
Xylenes, Total	ND		10	0.84	ug/Kg		01/17/19 22:25	01/17/19 23:55	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	100		71 - 125	01/17/19 22:25	01/17/19 23:55	1
1,2-Dichloroethane-d4 (Surr)	106		64 - 126	01/17/19 22:25	01/17/19 23:55	1
4-Bromofluorobenzene (Surr)	97		72 - 126	01/17/19 22:25	01/17/19 23:55	1
Dibromofluoromethane (Surr)	102		60 - 140	01/17/19 22:25	01/17/19 23:55	1

Lab Sample ID: LCS 480-455567/1-A

Matrix: Solid

Analysis Batch: 455561

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 455567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,1,2,2-Tetrachloroethane	50.0	45.8		ug/Kg		92	80 - 120	
1,1,2-Trichloroethane	50.0	45.6		ug/Kg		91	78 - 122	
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	48.8		ug/Kg		98	60 - 140	
1,1-Dichloroethane	50.0	47.5		ug/Kg		95	73 - 126	
1,1-Dichloroethene	50.0	47.7		ug/Kg		95	59 - 125	
1,2,4-Trichlorobenzene	50.0	47.1		ug/Kg		94	64 - 120	
1,2-Dibromo-3-Chloropropane	50.0	46.0		ug/Kg		92	63 - 124	
1,2-Dichlorobenzene	50.0	45.6		ug/Kg		91	75 - 120	
1,2-Dichloroethane	50.0	47.7		ug/Kg		95	77 - 122	
1,2-Dichloropropane	50.0	46.3		ug/Kg		93	75 - 124	
1,3-Dichlorobenzene	50.0	46.2		ug/Kg		92	74 - 120	
1,4-Dichlorobenzene	50.0	46.2		ug/Kg		92	73 - 120	
2-Butanone (MEK)	250	262		ug/Kg		105	70 - 134	
2-Hexanone	250	256		ug/Kg		102	59 - 130	
4-Methyl-2-pentanone (MIBK)	250	248		ug/Kg		99	65 - 133	
Acetone	250	267		ug/Kg		107	61 - 137	
Benzene	50.0	47.5		ug/Kg		95	79 - 127	
Bromodichloromethane	50.0	47.2		ug/Kg		94	80 - 122	
Bromoform	50.0	48.3		ug/Kg		97	68 - 126	
Bromomethane	50.0	47.0		ug/Kg		94	37 - 149	
Carbon disulfide	50.0	47.3		ug/Kg		95	64 - 131	
Carbon tetrachloride	50.0	49.8		ug/Kg		100	75 - 135	
Chlorobenzene	50.0	46.7		ug/Kg		93	76 - 124	
Dibromochloromethane	50.0	47.5		ug/Kg		95	76 - 125	
Chloroethane	50.0	41.3		ug/Kg		83	69 - 135	
Chloroform	50.0	47.5		ug/Kg		95	80 - 120	
Chloromethane	50.0	49.7		ug/Kg		99	63 - 127	
cis-1,2-Dichloroethene	50.0	46.5		ug/Kg		93	81 - 120	
cis-1,3-Dichloropropene	50.0	46.5		ug/Kg		93	80 - 120	
Cyclohexane	50.0	46.6		ug/Kg		93	65 - 120	
Dichlorodifluoromethane	50.0	44.9		ug/Kg		90	57 - 142	
Ethylbenzene	50.0	46.9		ug/Kg		94	80 - 120	
1,2-Dibromoethane	50.0	46.3		ug/Kg		93	78 - 120	
Isopropylbenzene	50.0	46.3		ug/Kg		93	72 - 120	
Methyl acetate	100	96.5		ug/Kg		96	55 - 136	
Methyl tert-butyl ether	50.0	48.0		ug/Kg		96	63 - 125	
Methylcyclohexane	50.0	47.5		ug/Kg		95	60 - 140	
Methylene Chloride	50.0	42.0		ug/Kg		84	61 - 127	
Styrene	50.0	45.2		ug/Kg		90	80 - 120	
Tetrachloroethene	50.0	47.8		ug/Kg		96	74 - 122	
Toluene	50.0	46.5		ug/Kg		93	74 - 128	
trans-1,2-Dichloroethene	50.0	47.6		ug/Kg		95	78 - 126	

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-455567/1-A

Matrix: Solid

Analysis Batch: 455561

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 455567

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	50.0	47.1		ug/Kg		94	73 - 123
Trichloroethene	50.0	47.4		ug/Kg		95	77 - 129
Trichlorofluoromethane	50.0	46.7		ug/Kg		93	65 - 146
Vinyl chloride	50.0	50.3		ug/Kg		101	61 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	101		71 - 125
1,2-Dichloroethane-d4 (Surr)	105		64 - 126
4-Bromofluorobenzene (Surr)	101		72 - 126
Dibromofluoromethane (Surr)	103		60 - 140

Lab Sample ID: 480-147994-20 MS

Matrix: Solid

Analysis Batch: 455561

Client Sample ID: SB - 6 (10' - 15')

Prep Type: Total/NA

Prep Batch: 455567

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND		42.7	33.6		ug/Kg	☼	79	77 - 121
1,1,1,2-Tetrachloroethane	ND	F1	42.7	25.4	F1	ug/Kg	☼	59	80 - 120
1,1,1,2-Trichloroethane	ND	F1	42.7	27.9	F1	ug/Kg	☼	65	78 - 122
1,1,1,2-Trichloro-1,1,2-trifluoroethane	ND		42.7	31.3		ug/Kg	☼	73	60 - 140
1,1-Dichloroethane	ND		42.7	34.5		ug/Kg	☼	81	73 - 126
1,1-Dichloroethene	ND		42.7	30.6		ug/Kg	☼	72	59 - 125
1,2,4-Trichlorobenzene	ND	F1	42.7	5.11	F1	ug/Kg	☼	12	64 - 120
1,2-Dibromo-3-Chloropropane	ND	F1	42.7	17.8	F1	ug/Kg	☼	42	63 - 124
1,2-Dichlorobenzene	ND	F1	42.7	17.1	F1	ug/Kg	☼	40	75 - 120
1,2-Dichloroethane	ND	F1	42.7	32.5	F1	ug/Kg	☼	76	77 - 122
1,2-Dichloropropane	ND		42.7	31.9		ug/Kg	☼	75	75 - 124
1,3-Dichlorobenzene	ND	F1	42.7	15.2	F1	ug/Kg	☼	36	74 - 120
1,4-Dichlorobenzene	ND	F1	42.7	15.1	F1	ug/Kg	☼	35	73 - 120
2-Butanone (MEK)	ND	F1	213	140	F1	ug/Kg	☼	65	70 - 134
2-Hexanone	ND	F1	213	117	F1	ug/Kg	☼	55	59 - 130
4-Methyl-2-pentanone (MIBK)	ND	F1	213	130	F1	ug/Kg	☼	61	65 - 133
Acetone	25		213	157		ug/Kg	☼	62	61 - 137
Benzene	ND	F1	42.7	32.9	F1	ug/Kg	☼	77	79 - 127
Bromodichloromethane	ND	F1	42.7	32.3	F1	ug/Kg	☼	76	80 - 122
Bromoform	ND	F1	42.7	23.8	F1	ug/Kg	☼	56	68 - 126
Bromomethane	ND		42.7	41.1		ug/Kg	☼	96	37 - 149
Carbon disulfide	ND		42.7	29.9		ug/Kg	☼	70	64 - 131
Carbon tetrachloride	ND		42.7	32.3		ug/Kg	☼	76	75 - 135
Chlorobenzene	ND	F1	42.7	24.6	F1	ug/Kg	☼	58	76 - 124
Dibromochloromethane	ND	F1	42.7	28.4	F1	ug/Kg	☼	66	76 - 125
Chloroethane	ND		42.7	37.9		ug/Kg	☼	89	69 - 135
Chloroform	ND		42.7	34.6		ug/Kg	☼	81	80 - 120
Chloromethane	ND		42.7	39.5		ug/Kg	☼	93	63 - 127
cis-1,2-Dichloroethene	ND	F1	42.7	31.9	F1	ug/Kg	☼	75	80 - 120
cis-1,3-Dichloropropene	ND	F1	42.7	27.7	F1	ug/Kg	☼	65	80 - 120
Cyclohexane	ND	F1	42.7	27.5	F1	ug/Kg	☼	64	65 - 120

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-147994-20 MS

Matrix: Solid

Analysis Batch: 455561

Client Sample ID: SB - 6 (10' - 15')

Prep Type: Total/NA

Prep Batch: 455567

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
Dichlorodifluoromethane	ND		42.7	32.3		ug/Kg	*	76	57 - 142
Ethylbenzene	ND	F1	42.7	24.2	F1	ug/Kg	*	57	80 - 120
1,2-Dibromoethane	ND	F1	42.7	23.8	F1	ug/Kg	*	56	78 - 120
Isopropylbenzene	ND	F1	42.7	23.9	F1	ug/Kg	*	56	72 - 120
Methyl acetate	ND		85.4	57.3		ug/Kg	*	67	55 - 136
Methyl tert-butyl ether	5.2		42.7	44.0		ug/Kg	*	91	63 - 125
Methylcyclohexane	ND	F1	42.7	23.5	F1	ug/Kg	*	55	60 - 140
Methylene Chloride	ND		42.7	32.0		ug/Kg	*	75	61 - 127
Styrene	ND	F1	42.7	20.5	F1	ug/Kg	*	48	80 - 120
Tetrachloroethene	ND	F1	42.7	24.3	F1	ug/Kg	*	57	74 - 122
Toluene	ND	F1	42.7	28.4	F1	ug/Kg	*	67	74 - 128
trans-1,2-Dichloroethene	ND	F1	42.7	30.8	F1	ug/Kg	*	72	78 - 126
trans-1,3-Dichloropropene	ND	F1	42.7	24.4	F1	ug/Kg	*	57	73 - 123
Trichloroethene	ND	F1	42.7	28.2	F1	ug/Kg	*	66	77 - 129
Trichlorofluoromethane	ND		42.7	35.4		ug/Kg	*	83	65 - 146
Vinyl chloride	ND		42.7	37.4		ug/Kg	*	88	61 - 133

Surrogate	MS %Recovery	MS Qualifier	MS Limits
Toluene-d8 (Surr)	101		71 - 125
1,2-Dichloroethane-d4 (Surr)	98		64 - 126
4-Bromofluorobenzene (Surr)	97		72 - 126
Dibromofluoromethane (Surr)	102		60 - 140

Lab Sample ID: 480-147994-20 MSD

Matrix: Solid

Analysis Batch: 455561

Client Sample ID: SB - 6 (10' - 15')

Prep Type: Total/NA

Prep Batch: 455567

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec. Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1,1-Trichloroethane	ND		48.7	38.6		ug/Kg	*	79	77 - 121	14	30
1,1,1,2-Tetrachloroethane	ND	F1	48.7	32.1	F1	ug/Kg	*	66	80 - 120	23	30
1,1,2-Trichloroethane	ND	F1	48.7	34.2	F1	ug/Kg	*	70	78 - 122	20	30
1,1,2-Trichloro-1,1,2-trifluoroethane	ND		48.7	35.0		ug/Kg	*	72	60 - 140	11	30
1,1-Dichloroethane	ND		48.7	39.7		ug/Kg	*	81	73 - 126	14	30
1,1-Dichloroethene	ND		48.7	34.5		ug/Kg	*	71	59 - 125	12	30
1,2,4-Trichlorobenzene	ND	F1	48.7	5.62	F1	ug/Kg	*	12	64 - 120	10	30
1,2-Dibromo-3-Chloropropane	ND	F1	48.7	22.5	F1	ug/Kg	*	46	63 - 124	23	30
1,2-Dichlorobenzene	ND	F1	48.7	21.2	F1	ug/Kg	*	44	75 - 120	22	30
1,2-Dichloroethane	ND	F1	48.7	38.7		ug/Kg	*	79	77 - 122	18	30
1,2-Dichloropropane	ND		48.7	38.1		ug/Kg	*	78	75 - 124	18	30
1,3-Dichlorobenzene	ND	F1	48.7	18.9	F1	ug/Kg	*	39	74 - 120	22	30
1,4-Dichlorobenzene	ND	F1	48.7	18.9	F1	ug/Kg	*	39	73 - 120	22	30
2-Butanone (MEK)	ND	F1	244	166	F1	ug/Kg	*	68	70 - 134	18	30
2-Hexanone	ND	F1	244	146		ug/Kg	*	60	59 - 130	22	30
4-Methyl-2-pentanone (MIBK)	ND	F1	244	159		ug/Kg	*	65	65 - 133	20	30
Acetone	25		244	178		ug/Kg	*	63	61 - 137	13	30
Benzene	ND	F1	48.7	38.3		ug/Kg	*	79	79 - 127	15	30
Bromodichloromethane	ND	F1	48.7	38.7	F1	ug/Kg	*	79	80 - 122	18	30

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-147994-20 MSD

Matrix: Solid

Analysis Batch: 455561

Client Sample ID: SB - 6 (10' - 15')

Prep Type: Total/NA

Prep Batch: 455567

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Bromoform	ND	F1	48.7	29.9	F1	ug/Kg	*	61	68 - 126	23	30
Bromomethane	ND		48.7	45.1		ug/Kg	*	93	37 - 149	9	30
Carbon disulfide	ND		48.7	34.0		ug/Kg	*	70	64 - 131	13	30
Carbon tetrachloride	ND		48.7	37.0		ug/Kg	*	76	75 - 135	13	30
Chlorobenzene	ND	F1	48.7	30.4	F1	ug/Kg	*	62	76 - 124	21	30
Dibromochloromethane	ND	F1	48.7	35.0	F1	ug/Kg	*	72	76 - 125	21	30
Chloroethane	ND		48.7	41.2		ug/Kg	*	85	69 - 135	8	30
Chloroform	ND		48.7	39.8		ug/Kg	*	82	80 - 120	14	30
Chloromethane	ND		48.7	43.3		ug/Kg	*	89	63 - 127	9	30
cis-1,2-Dichloroethene	ND	F1	48.7	37.7	F1	ug/Kg	*	77	80 - 120	17	30
cis-1,3-Dichloropropene	ND	F1	48.7	34.3	F1	ug/Kg	*	70	80 - 120	21	30
Cyclohexane	ND	F1	48.7	31.4		ug/Kg	*	65	65 - 120	13	30
Dichlorodifluoromethane	ND		48.7	32.7		ug/Kg	*	67	57 - 142	1	30
Ethylbenzene	ND	F1	48.7	29.1	F1	ug/Kg	*	60	80 - 120	18	30
1,2-Dibromoethane	ND	F1	48.7	29.8	F1	ug/Kg	*	61	78 - 120	22	30
Isopropylbenzene	ND	F1	48.7	28.5	F1	ug/Kg	*	59	72 - 120	18	30
Methyl acetate	ND		97.4	68.1		ug/Kg	*	70	55 - 136	17	30
Methyl tert-butyl ether	5.2		48.7	49.5		ug/Kg	*	91	63 - 125	12	30
Methylcyclohexane	ND	F1	48.7	26.9	F1	ug/Kg	*	55	60 - 140	14	30
Methylene Chloride	ND		48.7	36.9		ug/Kg	*	76	61 - 127	14	30
Styrene	ND	F1	48.7	25.4	F1	ug/Kg	*	52	80 - 120	21	30
Tetrachloroethene	ND	F1	48.7	29.1	F1	ug/Kg	*	60	74 - 122	18	30
Toluene	ND	F1	48.7	33.6	F1	ug/Kg	*	69	74 - 128	17	30
trans-1,2-Dichloroethene	ND	F1	48.7	35.9	F1	ug/Kg	*	74	78 - 126	15	30
trans-1,3-Dichloropropene	ND	F1	48.7	30.6	F1	ug/Kg	*	63	73 - 123	22	30
Trichloroethene	ND	F1	48.7	33.8	F1	ug/Kg	*	69	77 - 129	18	30
Trichlorofluoromethane	ND		48.7	38.7		ug/Kg	*	79	65 - 146	9	30
Vinyl chloride	ND		48.7	40.6		ug/Kg	*	83	61 - 133	8	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	101		71 - 125
1,2-Dichloroethane-d4 (Surr)	98		64 - 126
4-Bromofluorobenzene (Surr)	97		72 - 126
Dibromofluoromethane (Surr)	103		60 - 140

Lab Sample ID: MB 480-455862/2-A

Matrix: Solid

Analysis Batch: 455839

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 455862

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		100	28	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
1,1,2,2-Tetrachloroethane	ND		100	16	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
1,1,2-Trichloroethane	ND		100	21	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	50	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
1,1-Dichloroethane	ND		100	31	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
1,1-Dichloroethene	ND		100	35	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
1,2,4-Trichlorobenzene	ND		100	38	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
1,2-Dibromo-3-Chloropropane	ND		100	50	ug/Kg		01/21/19 08:33	01/21/19 11:48	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-455862/2-A
Matrix: Solid
Analysis Batch: 455839

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 455862

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dichlorobenzene	ND		100	26	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
1,2-Dichloroethane	ND		100	41	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
1,2-Dichloropropane	ND		100	16	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
1,3-Dichlorobenzene	ND		100	27	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
1,4-Dichlorobenzene	ND		100	14	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
2-Butanone (MEK)	ND		500	300	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
2-Hexanone	ND		500	210	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
4-Methyl-2-pentanone (MIBK)	ND		500	32	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Acetone	ND		500	410	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Benzene	ND		100	19	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Bromodichloromethane	ND		100	20	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Bromoform	ND		100	50	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Bromomethane	ND		100	22	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Carbon disulfide	ND		100	46	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Carbon tetrachloride	ND		100	26	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Chlorobenzene	ND		100	13	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Dibromochloromethane	ND		100	48	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Chloroethane	ND		100	21	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Chloroform	ND		100	69	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Chloromethane	ND		100	24	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
cis-1,2-Dichloroethene	ND		100	28	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
cis-1,3-Dichloropropene	ND		100	24	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Cyclohexane	ND		100	22	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Dichlorodifluoromethane	ND		100	44	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Ethylbenzene	ND		100	29	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
1,2-Dibromoethane	ND		100	18	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Isopropylbenzene	ND		100	15	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Methyl acetate	84.7	J	500	48	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Methyl tert-butyl ether	ND		100	38	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Methylcyclohexane	ND		100	47	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Methylene Chloride	ND		100	20	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Styrene	ND		100	24	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Tetrachloroethene	ND		100	13	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Toluene	ND		100	27	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
trans-1,2-Dichloroethene	ND		100	24	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
trans-1,3-Dichloropropene	ND		100	9.8	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Trichloroethene	ND		100	28	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Trichlorofluoromethane	ND		100	47	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Vinyl chloride	ND		100	34	ug/Kg		01/21/19 08:33	01/21/19 11:48	1
Xylenes, Total	ND		200	55	ug/Kg		01/21/19 08:33	01/21/19 11:48	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	101		50 - 149	01/21/19 08:33	01/21/19 11:48	1
1,2-Dichloroethane-d4 (Surr)	105		53 - 146	01/21/19 08:33	01/21/19 11:48	1
4-Bromofluorobenzene (Surr)	103		49 - 148	01/21/19 08:33	01/21/19 11:48	1
Dibromofluoromethane (Surr)	93		60 - 140	01/21/19 08:33	01/21/19 11:48	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-455862/1-A

Matrix: Solid

Analysis Batch: 455839

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 455862

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	2500	2880		ug/Kg		115	68 - 130
1,1,1,2-Tetrachloroethane	2500	2320		ug/Kg		93	73 - 120
1,1,2-Trichloroethane	2500	2410		ug/Kg		96	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	2720		ug/Kg		109	10 - 179
1,1-Dichloroethane	2500	2660		ug/Kg		106	78 - 121
1,1-Dichloroethene	2500	2610		ug/Kg		104	48 - 133
1,2,4-Trichlorobenzene	2500	2650		ug/Kg		106	70 - 140
1,2-Dibromo-3-Chloropropane	2500	2600		ug/Kg		104	56 - 122
1,2-Dichlorobenzene	2500	2640		ug/Kg		106	78 - 125
1,2-Dichloroethane	2500	2720		ug/Kg		109	74 - 127
1,2-Dichloropropane	2500	2770		ug/Kg		111	80 - 120
1,3-Dichlorobenzene	2500	2650		ug/Kg		106	80 - 120
1,4-Dichlorobenzene	2500	2660		ug/Kg		106	80 - 120
2-Butanone (MEK)	12500	13200		ug/Kg		105	54 - 149
2-Hexanone	12500	12500		ug/Kg		100	59 - 127
4-Methyl-2-pentanone (MIBK)	12500	12600		ug/Kg		101	74 - 120
Acetone	12500	12700		ug/Kg		102	47 - 141
Benzene	2500	2620		ug/Kg		105	77 - 125
Bromodichloromethane	2500	2840		ug/Kg		114	71 - 121
Bromoform	2500	3110		ug/Kg		124	48 - 125
Bromomethane	2500	2940		ug/Kg		118	39 - 149
Carbon disulfide	2500	2380		ug/Kg		95	40 - 136
Carbon tetrachloride	2500	3090		ug/Kg		124	54 - 135
Chlorobenzene	2500	2600		ug/Kg		104	76 - 126
Dibromochloromethane	2500	2800		ug/Kg		112	64 - 120
Chloroethane	2500	3270		ug/Kg		131	23 - 150
Chloroform	2500	2610		ug/Kg		104	78 - 120
Chloromethane	2500	2830		ug/Kg		113	61 - 124
cis-1,2-Dichloroethene	2500	2550		ug/Kg		102	79 - 124
cis-1,3-Dichloropropene	2500	2700		ug/Kg		108	75 - 121
Cyclohexane	2500	3050		ug/Kg		122	49 - 129
Dichlorodifluoromethane	2500	2710		ug/Kg		108	10 - 150
Ethylbenzene	2500	2620		ug/Kg		105	78 - 124
1,2-Dibromoethane	2500	2540		ug/Kg		101	80 - 120
Isopropylbenzene	2500	2630		ug/Kg		105	76 - 120
Methyl acetate	5000	5470		ug/Kg		109	71 - 123
Methyl tert-butyl ether	2500	2390		ug/Kg		96	67 - 137
Methylcyclohexane	2500	2920		ug/Kg		117	50 - 130
Methylene Chloride	2500	2720		ug/Kg		109	75 - 118
Styrene	2500	2680		ug/Kg		107	80 - 120
Tetrachloroethene	2500	2620		ug/Kg		105	73 - 133
Toluene	2500	2500		ug/Kg		100	75 - 124
trans-1,2-Dichloroethene	2500	2550		ug/Kg		102	74 - 129
trans-1,3-Dichloropropene	2500	2700		ug/Kg		108	73 - 120
Trichloroethene	2500	2660		ug/Kg		106	75 - 131
Trichlorofluoromethane	2500	3000		ug/Kg		120	29 - 158
Vinyl chloride	2500	2770		ug/Kg		111	59 - 124

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-455862/1-A

Matrix: Solid

Analysis Batch: 455839

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 455862

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	97		50 - 149
1,2-Dichloroethane-d4 (Surr)	108		53 - 146
4-Bromofluorobenzene (Surr)	104		49 - 148
Dibromofluoromethane (Surr)	104		60 - 140

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-455529/1-A

Matrix: Solid

Analysis Batch: 455698

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 455529

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		170	25	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
bis (2-chloroisopropyl) ether	ND		170	34	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2,4,5-Trichlorophenol	ND		170	46	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2,4,6-Trichlorophenol	ND		170	34	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2,4-Dichlorophenol	ND		170	18	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2,4-Dimethylphenol	ND		170	41	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2,4-Dinitrophenol	ND		1600	780	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2,4-Dinitrotoluene	ND		170	35	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2,6-Dinitrotoluene	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2-Chloronaphthalene	ND		170	28	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2-Chlorophenol	ND		170	31	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2-Methylphenol	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2-Methylnaphthalene	ND		170	34	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2-Nitroaniline	ND		330	25	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
2-Nitrophenol	ND		170	48	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
3,3'-Dichlorobenzidine	ND		330	200	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
3-Nitroaniline	ND		330	47	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4,6-Dinitro-2-methylphenol	ND		330	170	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4-Bromophenyl phenyl ether	ND		170	24	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4-Chloro-3-methylphenol	ND		170	42	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4-Chloroaniline	ND		170	42	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4-Chlorophenyl phenyl ether	ND		170	21	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4-Methylphenol	ND		330	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4-Nitroaniline	ND		330	88	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
4-Nitrophenol	ND		330	120	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Acenaphthene	ND		170	25	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Acenaphthylene	ND		170	22	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Acetophenone	ND		170	23	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Anthracene	ND		170	42	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Atrazine	ND		170	59	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Benzaldehyde	ND		170	130	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Benzo[a]anthracene	ND		170	17	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Benzo[a]pyrene	ND		170	25	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Benzo[b]fluoranthene	ND		170	27	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Benzo[g,h,i]perylene	ND		170	18	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Benzo[k]fluoranthene	ND		170	22	ug/Kg		01/17/19 14:43	01/18/19 17:50	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-455529/1-A

Matrix: Solid

Analysis Batch: 455698

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 455529

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bis(2-chloroethoxy)methane	ND		170	36	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Bis(2-chloroethyl)ether	ND		170	22	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Bis(2-ethylhexyl) phthalate	ND		170	58	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Butyl benzyl phthalate	ND		170	28	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Caprolactam	ND		170	51	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Carbazole	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Chrysene	ND		170	38	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Dibenz(a,h)anthracene	ND		170	30	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Di-n-butyl phthalate	ND		170	29	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Di-n-octyl phthalate	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Dibenzofuran	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Diethyl phthalate	ND		170	22	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Dimethyl phthalate	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Fluoranthene	ND		170	18	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Fluorene	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Hexachlorobenzene	ND		170	23	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Hexachlorobutadiene	ND		170	25	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Hexachlorocyclopentadiene	ND		170	23	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Hexachloroethane	ND		170	22	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Indeno[1,2,3-cd]pyrene	ND		170	21	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Isophorone	ND		170	36	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
N-Nitrosodi-n-propylamine	ND		170	29	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
N-Nitrosodiphenylamine	ND		170	140	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Naphthalene	ND		170	22	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Nitrobenzene	ND		170	19	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Pentachlorophenol	ND		330	170	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Phenanthrene	ND		170	25	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Phenol	ND		170	26	ug/Kg		01/17/19 14:43	01/18/19 17:50	1
Pyrene	ND		170	20	ug/Kg		01/17/19 14:43	01/18/19 17:50	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Nitrobenzene-d5 (Surr)	89		53 - 120	01/17/19 14:43	01/18/19 17:50	1
Phenol-d5 (Surr)	86		54 - 120	01/17/19 14:43	01/18/19 17:50	1
p-Terphenyl-d14 (Surr)	128	X	65 - 121	01/17/19 14:43	01/18/19 17:50	1
2,4,6-Tribromophenol (Surr)	92		54 - 120	01/17/19 14:43	01/18/19 17:50	1
2-Fluorobiphenyl	97		60 - 120	01/17/19 14:43	01/18/19 17:50	1
2-Fluorophenol (Surr)	83		52 - 120	01/17/19 14:43	01/18/19 17:50	1

Lab Sample ID: LCS 480-455529/2-A

Matrix: Solid

Analysis Batch: 455698

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 455529

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Biphenyl	1650	1550		ug/Kg		94	59 - 120
bis (2-chloroisopropyl) ether	1650	1280		ug/Kg		78	44 - 120
2,4,5-Trichlorophenol	1650	1560		ug/Kg		94	59 - 126
2,4,6-Trichlorophenol	1650	1560		ug/Kg		95	59 - 123
2,4-Dichlorophenol	1650	1520		ug/Kg		92	61 - 120

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-455529/2-A

Matrix: Solid

Analysis Batch: 455698

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 455529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dimethylphenol	1650	1470		ug/Kg		89	59 - 120
2,4-Dinitrophenol	3300	1840		ug/Kg		56	41 - 146
2,4-Dinitrotoluene	1650	1530		ug/Kg		93	63 - 120
2,6-Dinitrotoluene	1650	1570		ug/Kg		95	66 - 120
2-Chloronaphthalene	1650	1540		ug/Kg		93	57 - 120
2-Chlorophenol	1650	1320		ug/Kg		80	53 - 120
2-Methylphenol	1650	1380		ug/Kg		84	54 - 120
2-Methylnaphthalene	1650	1460		ug/Kg		89	59 - 120
2-Nitroaniline	1650	1530		ug/Kg		93	61 - 120
2-Nitrophenol	1650	1400		ug/Kg		85	56 - 120
3,3'-Dichlorobenzidine	3300	2610		ug/Kg		79	54 - 120
3-Nitroaniline	1650	1220		ug/Kg		74	48 - 120
4,6-Dinitro-2-methylphenol	3300	3020		ug/Kg		91	49 - 122
4-Bromophenyl phenyl ether	1650	1600		ug/Kg		97	58 - 120
4-Chloro-3-methylphenol	1650	1530		ug/Kg		93	61 - 120
4-Chloroaniline	1650	1160		ug/Kg		70	38 - 120
4-Chlorophenyl phenyl ether	1650	1580		ug/Kg		96	63 - 124
4-Methylphenol	1650	1410		ug/Kg		86	55 - 120
4-Nitroaniline	1650	1450		ug/Kg		88	56 - 120
4-Nitrophenol	3300	3000		ug/Kg		91	43 - 147
Acenaphthene	1650	1540		ug/Kg		94	62 - 120
Acenaphthylene	1650	1670		ug/Kg		101	58 - 121
Acetophenone	1650	1350		ug/Kg		82	54 - 120
Anthracene	1650	1630		ug/Kg		99	62 - 120
Atrazine	3300	3110		ug/Kg		94	60 - 127
Benzaldehyde	3300	2060		ug/Kg		62	10 - 150
Benzo[a]anthracene	1650	1560		ug/Kg		95	65 - 120
Benzo[a]pyrene	1650	1650		ug/Kg		100	64 - 120
Benzo[b]fluoranthene	1650	1600		ug/Kg		97	64 - 120
Benzo[g,h,i]perylene	1650	1680		ug/Kg		102	45 - 145
Benzo[k]fluoranthene	1650	1690		ug/Kg		102	65 - 120
Bis(2-chloroethoxy)methane	1650	1450		ug/Kg		88	55 - 120
Bis(2-chloroethyl)ether	1650	1330		ug/Kg		80	45 - 120
Bis(2-ethylhexyl) phthalate	1650	1780		ug/Kg		108	61 - 133
Butyl benzyl phthalate	1650	1670		ug/Kg		101	61 - 129
Caprolactam	3300	2930		ug/Kg		89	47 - 120
Carbazole	1650	1610		ug/Kg		98	65 - 120
Chrysene	1650	1600		ug/Kg		97	64 - 120
Dibenz(a,h)anthracene	1650	1690		ug/Kg		103	54 - 132
Di-n-butyl phthalate	1650	1670		ug/Kg		101	58 - 130
Di-n-octyl phthalate	1650	1740		ug/Kg		106	57 - 133
Dibenzofuran	1650	1620		ug/Kg		98	63 - 120
Diethyl phthalate	1650	1650		ug/Kg		100	66 - 120
Dimethyl phthalate	1650	1650		ug/Kg		100	65 - 124
Fluoranthene	1650	1600		ug/Kg		97	62 - 120
Fluorene	1650	1610		ug/Kg		98	63 - 120
Hexachlorobenzene	1650	1590		ug/Kg		97	60 - 120
Hexachlorobutadiene	1650	1410		ug/Kg		86	45 - 120

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-455529/2-A

Matrix: Solid

Analysis Batch: 455698

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 455529

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Hexachlorocyclopentadiene	1650	1520		ug/Kg		92	47 - 120
Hexachloroethane	1650	1250		ug/Kg		76	41 - 120
Indeno[1,2,3-cd]pyrene	1650	1690		ug/Kg		102	56 - 134
Isophorone	1650	1540		ug/Kg		93	56 - 120
N-Nitrosodi-n-propylamine	1650	1400		ug/Kg		85	52 - 120
N-Nitrosodiphenylamine	1650	1650		ug/Kg		100	51 - 128
Naphthalene	1650	1430		ug/Kg		86	55 - 120
Nitrobenzene	1650	1400		ug/Kg		85	54 - 120
Pentachlorophenol	3300	3230		ug/Kg		98	51 - 120
Phenanthrene	1650	1550		ug/Kg		94	60 - 120
Phenol	1650	1360		ug/Kg		83	53 - 120
Pyrene	1650	1670		ug/Kg		101	61 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	86		53 - 120
Phenol-d5 (Surr)	84		54 - 120
p-Terphenyl-d14 (Surr)	112		65 - 121
2,4,6-Tribromophenol (Surr)	97		54 - 120
2-Fluorobiphenyl	95		60 - 120
2-Fluorophenol (Surr)	81		52 - 120

Lab Sample ID: 480-147994-6 MS

Matrix: Solid

Analysis Batch: 455698

Client Sample ID: SB - 3 (0' - 5')

Prep Type: Total/NA

Prep Batch: 455529

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Biphenyl	ND		1900	1740		ug/Kg	☼	92	58 - 120
bis (2-chloroisopropyl) ether	ND		1900	1390		ug/Kg	☼	73	31 - 120
2,4,5-Trichlorophenol	ND		1900	1730		ug/Kg	☼	91	46 - 120
2,4,6-Trichlorophenol	ND		1900	1770		ug/Kg	☼	93	41 - 123
2,4-Dichlorophenol	ND		1900	1690		ug/Kg	☼	89	45 - 120
2,4-Dimethylphenol	ND		1900	1660		ug/Kg	☼	87	52 - 120
2,4-Dinitrophenol	ND		3810	2350		ug/Kg	☼	62	41 - 146
2,4-Dinitrotoluene	ND		1900	1710		ug/Kg	☼	90	63 - 125
2,6-Dinitrotoluene	ND		1900	1760		ug/Kg	☼	92	66 - 120
2-Chloronaphthalene	ND		1900	1720		ug/Kg	☼	90	57 - 120
2-Chlorophenol	ND		1900	1460		ug/Kg	☼	77	43 - 120
2-Methylphenol	ND		1900	1540		ug/Kg	☼	81	48 - 120
2-Methylnaphthalene	ND		1900	1650		ug/Kg	☼	87	55 - 120
2-Nitroaniline	ND		1900	1710		ug/Kg	☼	90	61 - 120
2-Nitrophenol	ND		1900	1610		ug/Kg	☼	85	37 - 120
3,3'-Dichlorobenzidine	ND		3810	3160		ug/Kg	☼	83	37 - 126
3-Nitroaniline	ND		1900	1360		ug/Kg	☼	71	48 - 120
4,6-Dinitro-2-methylphenol	ND		3810	3730		ug/Kg	☼	98	23 - 149
4-Bromophenyl phenyl ether	ND		1900	1840		ug/Kg	☼	96	58 - 120
4-Chloro-3-methylphenol	ND		1900	1720		ug/Kg	☼	91	49 - 125
4-Chloroaniline	ND		1900	1260		ug/Kg	☼	66	38 - 120
4-Chlorophenyl phenyl ether	ND		1900	1750		ug/Kg	☼	92	63 - 124

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-147994-6 MS

Matrix: Solid

Analysis Batch: 455698

Client Sample ID: SB - 3 (0' - 5')

Prep Type: Total/NA

Prep Batch: 455529

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
4-Methylphenol	ND		1900	1570		ug/Kg	*	82	50 - 120
4-Nitroaniline	ND		1900	1610		ug/Kg	*	84	47 - 120
4-Nitrophenol	ND		3810	3340		ug/Kg	*	88	31 - 147
Acenaphthene	ND		1900	1720		ug/Kg	*	91	60 - 120
Acenaphthylene	ND		1900	1860		ug/Kg	*	97	58 - 121
Acetophenone	ND		1900	1480		ug/Kg	*	78	47 - 120
Anthracene	ND		1900	1820		ug/Kg	*	96	62 - 120
Atrazine	ND		3810	3350		ug/Kg	*	88	60 - 150
Benzaldehyde	ND		3810	2240		ug/Kg	*	59	10 - 150
Benzo[a]anthracene	ND		1900	1780		ug/Kg	*	93	65 - 120
Benzo[a]pyrene	ND		1900	1900		ug/Kg	*	100	64 - 120
Benzo[b]fluoranthene	ND		1900	1820		ug/Kg	*	95	64 - 120
Benzo[g,h,i]perylene	ND		1900	1960		ug/Kg	*	103	45 - 145
Benzo[k]fluoranthene	ND		1900	1930		ug/Kg	*	101	65 - 120
Bis(2-chloroethoxy)methane	ND		1900	1630		ug/Kg	*	85	52 - 120
Bis(2-chloroethyl)ether	ND		1900	1440		ug/Kg	*	76	45 - 120
Bis(2-ethylhexyl) phthalate	90	J	1900	1930		ug/Kg	*	97	61 - 133
Butyl benzyl phthalate	ND		1900	1870		ug/Kg	*	98	61 - 120
Caprolactam	ND		3810	3300		ug/Kg	*	87	37 - 133
Carbazole	ND		1900	1770		ug/Kg	*	93	59 - 120
Chrysene	ND		1900	1860		ug/Kg	*	98	64 - 120
Dibenz(a,h)anthracene	ND		1900	1930		ug/Kg	*	101	54 - 132
Di-n-butyl phthalate	ND		1900	1900		ug/Kg	*	100	58 - 130
Di-n-octyl phthalate	ND		1900	1940		ug/Kg	*	102	57 - 133
Dibenzofuran	ND		1900	1770		ug/Kg	*	93	62 - 120
Diethyl phthalate	ND		1900	1810		ug/Kg	*	95	66 - 120
Dimethyl phthalate	ND		1900	1830		ug/Kg	*	96	65 - 124
Fluoranthene	ND		1900	1760		ug/Kg	*	93	62 - 120
Fluorene	ND		1900	1800		ug/Kg	*	94	63 - 120
Hexachlorobenzene	ND		1900	1800		ug/Kg	*	94	60 - 120
Hexachlorobutadiene	ND		1900	1580		ug/Kg	*	83	45 - 120
Hexachlorocyclopentadiene	ND		1900	1680		ug/Kg	*	88	31 - 120
Hexachloroethane	ND		1900	1360		ug/Kg	*	71	21 - 120
Indeno[1,2,3-cd]pyrene	ND		1900	1930		ug/Kg	*	101	56 - 134
Isophorone	ND		1900	1720		ug/Kg	*	90	56 - 120
N-Nitrosodi-n-propylamine	ND		1900	1570		ug/Kg	*	82	46 - 120
N-Nitrosodiphenylamine	ND		1900	1890		ug/Kg	*	99	20 - 128
Naphthalene	ND		1900	1600		ug/Kg	*	84	46 - 120
Nitrobenzene	ND		1900	1540		ug/Kg	*	81	49 - 120
Pentachlorophenol	ND		3810	3550		ug/Kg	*	93	25 - 136
Phenanthrene	ND		1900	1750		ug/Kg	*	92	60 - 122
Phenol	ND		1900	1480		ug/Kg	*	78	50 - 120
Pyrene	ND		1900	1930		ug/Kg	*	101	61 - 133

Surrogate	MS %Recovery	MS Qualifier	Limits
Nitrobenzene-d5 (Surr)	83		53 - 120
Phenol-d5 (Surr)	79		54 - 120
p-Terphenyl-d14 (Surr)	111		65 - 121

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-147994-6 MS

Matrix: Solid

Analysis Batch: 455698

Client Sample ID: SB - 3 (0' - 5')

Prep Type: Total/NA

Prep Batch: 455529

<i>Surrogate</i>	<i>%Recovery</i>	<i>MS MS Qualifier</i>	<i>Limits</i>
2,4,6-Tribromophenol (Surr)	98		54 - 120
2-Fluorobiphenyl	93		60 - 120
2-Fluorophenol (Surr)	76		52 - 120

Lab Sample ID: 480-147994-6 MSD

Matrix: Solid

Analysis Batch: 455698

Client Sample ID: SB - 3 (0' - 5')

Prep Type: Total/NA

Prep Batch: 455529

<i>Analyte</i>	<i>Sample Result</i>	<i>Sample Qualifier</i>	<i>Spike Added</i>	<i>MSD MSD</i>		<i>Unit</i>	<i>D</i>	<i>%Rec</i>	<i>%Rec.</i>		<i>RPD</i>	
				<i>Result</i>	<i>Qualifier</i>				<i>Limits</i>	<i>RPD</i>	<i>Limit</i>	
Biphenyl	ND		1880	1680		ug/Kg	*	90	58 - 120	3	20	
bis (2-chloroisopropyl) ether	ND		1880	1390		ug/Kg	*	74	31 - 120	1	24	
2,4,5-Trichlorophenol	ND		1880	1720		ug/Kg	*	92	46 - 120	1	18	
2,4,6-Trichlorophenol	ND		1880	1740		ug/Kg	*	93	41 - 123	2	19	
2,4-Dichlorophenol	ND		1880	1700		ug/Kg	*	91	45 - 120	1	19	
2,4-Dimethylphenol	ND		1880	1650		ug/Kg	*	88	52 - 120	0	42	
2,4-Dinitrophenol	ND		3750	2620		ug/Kg	*	70	41 - 146	11	22	
2,4-Dinitrotoluene	ND		1880	1750		ug/Kg	*	93	63 - 125	2	20	
2,6-Dinitrotoluene	ND		1880	1780		ug/Kg	*	95	66 - 120	1	15	
2-Chloronaphthalene	ND		1880	1680		ug/Kg	*	89	57 - 120	2	21	
2-Chlorophenol	ND		1880	1480		ug/Kg	*	79	43 - 120	1	25	
2-Methylphenol	ND		1880	1520		ug/Kg	*	81	48 - 120	1	27	
2-Methylnaphthalene	ND		1880	1630		ug/Kg	*	87	55 - 120	1	21	
2-Nitroaniline	ND		1880	1700		ug/Kg	*	91	61 - 120	0	15	
2-Nitrophenol	ND		1880	1600		ug/Kg	*	85	37 - 120	0	18	
3,3'-Dichlorobenzidine	ND		3750	3040		ug/Kg	*	81	37 - 126	4	25	
3-Nitroaniline	ND		1880	1340		ug/Kg	*	72	48 - 120	1	19	
4,6-Dinitro-2-methylphenol	ND		3750	3840		ug/Kg	*	102	23 - 149	3	15	
4-Bromophenyl phenyl ether	ND		1880	1820		ug/Kg	*	97	58 - 120	1	15	
4-Chloro-3-methylphenol	ND		1880	1700		ug/Kg	*	91	49 - 125	1	27	
4-Chloroaniline	ND		1880	1280		ug/Kg	*	68	38 - 120	1	22	
4-Chlorophenyl phenyl ether	ND		1880	1730		ug/Kg	*	92	63 - 124	2	16	
4-Methylphenol	ND		1880	1530		ug/Kg	*	81	50 - 120	3	24	
4-Nitroaniline	ND		1880	1620		ug/Kg	*	87	47 - 120	1	24	
4-Nitrophenol	ND		3750	3380		ug/Kg	*	90	31 - 147	1	25	
Acenaphthene	ND		1880	1700		ug/Kg	*	91	60 - 120	1	35	
Acenaphthylene	ND		1880	1840		ug/Kg	*	98	58 - 121	1	18	
Acetophenone	ND		1880	1470		ug/Kg	*	78	47 - 120	1	20	
Anthracene	ND		1880	1850		ug/Kg	*	99	62 - 120	2	15	
Atrazine	ND		3750	3440		ug/Kg	*	92	60 - 150	2	20	
Benzaldehyde	ND		3750	2240		ug/Kg	*	60	10 - 150	0	20	
Benzo[a]anthracene	ND		1880	1780		ug/Kg	*	95	65 - 120	0	15	
Benzo[a]pyrene	ND		1880	1880		ug/Kg	*	100	64 - 120	1	15	
Benzo[b]fluoranthene	ND		1880	1810		ug/Kg	*	96	64 - 120	1	15	
Benzo[g,h,i]perylene	ND		1880	1890		ug/Kg	*	101	45 - 145	4	15	
Benzo[k]fluoranthene	ND		1880	1890		ug/Kg	*	101	65 - 120	2	22	
Bis(2-chloroethoxy)methane	ND		1880	1600		ug/Kg	*	85	52 - 120	1	17	
Bis(2-chloroethyl)ether	ND		1880	1440		ug/Kg	*	77	45 - 120	0	21	
Bis(2-ethylhexyl) phthalate	90	J	1880	1990		ug/Kg	*	101	61 - 133	3	15	

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-147994-6 MSD

Matrix: Solid

Analysis Batch: 455698

Client Sample ID: SB - 3 (0' - 5')

Prep Type: Total/NA

Prep Batch: 455529

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		Limit
Butyl benzyl phthalate	ND		1880	1890		ug/Kg	*	101	61 - 120	1	16
Caprolactam	ND		3750	3360		ug/Kg	*	89	37 - 133	2	20
Carbazole	ND		1880	1810		ug/Kg	*	96	59 - 120	2	20
Chrysene	ND		1880	1820		ug/Kg	*	97	64 - 120	2	15
Dibenz(a,h)anthracene	ND		1880	1870		ug/Kg	*	100	54 - 132	3	15
Di-n-butyl phthalate	ND		1880	1870		ug/Kg	*	100	58 - 130	1	15
Di-n-octyl phthalate	ND		1880	1940		ug/Kg	*	104	57 - 133	0	16
Dibenzofuran	ND		1880	1770		ug/Kg	*	94	62 - 120	0	15
Diethyl phthalate	ND		1880	1820		ug/Kg	*	97	66 - 120	0	15
Dimethyl phthalate	ND		1880	1840		ug/Kg	*	98	65 - 124	0	15
Fluoranthene	ND		1880	1800		ug/Kg	*	96	62 - 120	2	15
Fluorene	ND		1880	1780		ug/Kg	*	95	63 - 120	1	15
Hexachlorobenzene	ND		1880	1780		ug/Kg	*	95	60 - 120	1	15
Hexachlorobutadiene	ND		1880	1580		ug/Kg	*	84	45 - 120	0	44
Hexachlorocyclopentadiene	ND		1880	1590		ug/Kg	*	85	31 - 120	6	49
Hexachloroethane	ND		1880	1330		ug/Kg	*	71	21 - 120	2	46
Indeno[1,2,3-cd]pyrene	ND		1880	1870		ug/Kg	*	100	56 - 134	3	15
Isophorone	ND		1880	1710		ug/Kg	*	91	56 - 120	1	17
N-Nitrosodi-n-propylamine	ND		1880	1520		ug/Kg	*	81	46 - 120	3	31
N-Nitrosodiphenylamine	ND		1880	1850		ug/Kg	*	99	20 - 128	2	15
Naphthalene	ND		1880	1570		ug/Kg	*	84	46 - 120	2	29
Nitrobenzene	ND		1880	1540		ug/Kg	*	82	49 - 120	0	24
Pentachlorophenol	ND		3750	3540		ug/Kg	*	94	25 - 136	0	35
Phenanthrene	ND		1880	1740		ug/Kg	*	93	60 - 122	0	15
Phenol	ND		1880	1500		ug/Kg	*	80	50 - 120	1	35
Pyrene	ND		1880	1910		ug/Kg	*	102	61 - 133	1	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Nitrobenzene-d5 (Surr)	84		53 - 120
Phenol-d5 (Surr)	80		54 - 120
p-Terphenyl-d14 (Surr)	111		65 - 121
2,4,6-Tribromophenol (Surr)	99		54 - 120
2-Fluorobiphenyl	92		60 - 120
2-Fluorophenol (Surr)	77		52 - 120

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-455541/1-A

Matrix: Solid

Analysis Batch: 455926

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 455541

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	ND		10	4.4	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Antimony	0.409	J	15.0	0.40	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Arsenic	ND		2.0	0.40	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Barium	ND		0.50	0.11	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Beryllium	ND		0.20	0.028	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Cadmium	ND		0.20	0.030	mg/Kg		01/18/19 10:20	01/21/19 10:35	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-455541/1-A
Matrix: Solid
Analysis Batch: 455926

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 455541

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Calcium	10.19	J	49.9	3.3	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Chromium	ND		0.50	0.20	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Cobalt	ND		0.50	0.050	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Copper	ND		1.0	0.21	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Iron	ND		10	3.5	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Lead	ND		1.0	0.24	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Magnesium	2.97	J	20.0	0.93	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Manganese	ND		0.20	0.032	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Nickel	0.323	J	5.0	0.23	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Potassium	30.08		29.9	20.0	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Selenium	ND		4.0	0.40	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Silver	ND		0.60	0.20	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Thallium	ND		6.0	0.30	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Vanadium	ND		0.50	0.11	mg/Kg		01/18/19 10:20	01/21/19 10:35	1
Zinc	ND		2.0	0.64	mg/Kg		01/18/19 10:20	01/21/19 10:35	1

Lab Sample ID: MB 480-455541/1-A
Matrix: Solid
Analysis Batch: 455934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 455541

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Sodium	50.10	J	140	13.0	mg/Kg		01/18/19 10:20	01/21/19 12:35	1

Lab Sample ID: LCSSRM 480-455541/2-A
Matrix: Solid
Analysis Batch: 455926

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 455541

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Aluminum	10100	7627		mg/Kg		75.5	41.6 - 123.8	
Antimony	145	41.25		mg/Kg		28.4	10.0 - 137.2	
Arsenic	171	129.7		mg/Kg		75.9	66.1 - 122.2	
Barium	272	200.4		mg/Kg		73.7	71.7 - 119.5	
Beryllium	102	77.53		mg/Kg		76.0	71.8 - 119.6	
Cadmium	225	162.0		mg/Kg		72.0	70.2 - 117.3	
Calcium	5190	3674		mg/Kg		70.8	66.7 - 117.0	
Chromium	144	104.2		mg/Kg		72.4	66.1 - 122.9	
Cobalt	48.8	43.03		mg/Kg		88.2	74.0 - 123.4	
Copper	174	133.9		mg/Kg		77.0	71.3 - 119.0	
Iron	15000	11380		mg/Kg		75.9	32.9 - 154.7	
Lead	111	105.6		mg/Kg		95.2	71.0 - 128.8	

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-455541/2-A
Matrix: Solid
Analysis Batch: 455926

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 455541

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Magnesium	2570	1896		mg/Kg		73.8	56.4 - 125.3
Manganese	232	211.6		mg/Kg		91.2	71.1 - 125.4
Nickel	98.3	84.17		mg/Kg		85.6	65.4 - 121.1
Potassium	2420	1808		mg/Kg		74.7	49.2 - 117.8
Selenium	206	155.8		mg/Kg		75.6	63.6 - 122.3
Silver	45.5	33.72		mg/Kg		74.1	66.2 - 124.2
Sodium	252	232.4		mg/Kg		92.2	41.7 - 131.7
Thallium	167	142.2		mg/Kg		85.1	65.9 - 121.0
Vanadium	61.8	47.39		mg/Kg		76.7	52.1 - 131.6
Zinc	207	165.9		mg/Kg		80.1	67.1 - 125.1

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-456040/1-A
Matrix: Solid
Analysis Batch: 456102

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 456040

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.018	0.0075	mg/Kg		01/22/19 11:10	01/22/19 13:53	1

Lab Sample ID: LCSSRM 480-456040/2-A ^10
Matrix: Solid
Analysis Batch: 456102

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 456040

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	12.0	11.15		mg/Kg		92.9	57.3 - 133.3

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

GC/MS VOA

Analysis Batch: 455561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-3	SB - 2 (5' - 10')	Total/NA	Solid	8260C	455567
480-147994-4	SB - 2 (10' - 15')	Total/NA	Solid	8260C	455567
480-147994-9	SB - 4 (0' - 5')	Total/NA	Solid	8260C	455567
480-147994-15	SB - 5 (5' - 10')	Total/NA	Solid	8260C	455567
480-147994-16	SB - 5 (10' - 15')	Total/NA	Solid	8260C	455567
480-147994-19	SB - 6 (5' - 10')	Total/NA	Solid	8260C	455567
480-147994-20	SB - 6 (10' - 15')	Total/NA	Solid	8260C	455567
MB 480-455567/2-A	Method Blank	Total/NA	Solid	8260C	455567
LCS 480-455567/1-A	Lab Control Sample	Total/NA	Solid	8260C	455567
480-147994-20 MS	SB - 6 (10' - 15')	Total/NA	Solid	8260C	455567
480-147994-20 MSD	SB - 6 (10' - 15')	Total/NA	Solid	8260C	455567

Prep Batch: 455567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-3	SB - 2 (5' - 10')	Total/NA	Solid	5035A_L	
480-147994-4	SB - 2 (10' - 15')	Total/NA	Solid	5035A_L	
480-147994-9	SB - 4 (0' - 5')	Total/NA	Solid	5035A_L	
480-147994-15	SB - 5 (5' - 10')	Total/NA	Solid	5035A_L	
480-147994-16	SB - 5 (10' - 15')	Total/NA	Solid	5035A_L	
480-147994-19	SB - 6 (5' - 10')	Total/NA	Solid	5035A_L	
480-147994-20	SB - 6 (10' - 15')	Total/NA	Solid	5035A_L	
MB 480-455567/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-455567/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	
480-147994-20 MS	SB - 6 (10' - 15')	Total/NA	Solid	5035A_L	
480-147994-20 MSD	SB - 6 (10' - 15')	Total/NA	Solid	5035A_L	

Analysis Batch: 455839

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-7	SB - 3 (10' - 15')	Total/NA	Solid	8260C	455862
480-147994-8	SB - 3 (15' - 20')	Total/NA	Solid	8260C	455862
480-147994-10	SB - 4 (10' - 15')	Total/NA	Solid	8260C	455862
MB 480-455862/2-A	Method Blank	Total/NA	Solid	8260C	455862
LCS 480-455862/1-A	Lab Control Sample	Total/NA	Solid	8260C	455862

Prep Batch: 455862

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-7	SB - 3 (10' - 15')	Total/NA	Solid	5035A_H	
480-147994-8	SB - 3 (15' - 20')	Total/NA	Solid	5035A_H	
480-147994-10	SB - 4 (10' - 15')	Total/NA	Solid	5035A_H	
MB 480-455862/2-A	Method Blank	Total/NA	Solid	5035A_H	
LCS 480-455862/1-A	Lab Control Sample	Total/NA	Solid	5035A_H	

GC/MS Semi VOA

Prep Batch: 455529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-2	SB - 2 (0' - 5')	Total/NA	Solid	3550C	
480-147994-6	SB - 3 (0' - 5')	Total/NA	Solid	3550C	
480-147994-12	SB - 4 (5' - 10')	Total/NA	Solid	3550C	
480-147994-14	SB - 5 (5' - 10')	Total/NA	Solid	3550C	

TestAmerica Buffalo

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

GC/MS Semi VOA (Continued)

Prep Batch: 455529 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-18	SB - 6 (5' - 10')	Total/NA	Solid	3550C	
MB 480-455529/1-A	Method Blank	Total/NA	Solid	3550C	
LCS 480-455529/2-A	Lab Control Sample	Total/NA	Solid	3550C	
480-147994-6 MS	SB - 3 (0' - 5')	Total/NA	Solid	3550C	
480-147994-6 MSD	SB - 3 (0' - 5')	Total/NA	Solid	3550C	

Analysis Batch: 455698

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-2	SB - 2 (0' - 5')	Total/NA	Solid	8270D	455529
480-147994-6	SB - 3 (0' - 5')	Total/NA	Solid	8270D	455529
480-147994-12	SB - 4 (5' - 10')	Total/NA	Solid	8270D	455529
480-147994-14	SB - 5 (5' - 10')	Total/NA	Solid	8270D	455529
480-147994-18	SB - 6 (5' - 10')	Total/NA	Solid	8270D	455529
MB 480-455529/1-A	Method Blank	Total/NA	Solid	8270D	455529
LCS 480-455529/2-A	Lab Control Sample	Total/NA	Solid	8270D	455529
480-147994-6 MS	SB - 3 (0' - 5')	Total/NA	Solid	8270D	455529
480-147994-6 MSD	SB - 3 (0' - 5')	Total/NA	Solid	8270D	455529

Metals

Prep Batch: 455541

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-1	SB - 2 (0' - 5')	Total/NA	Solid	3050B	
480-147994-5	SB - 3 (0' - 5')	Total/NA	Solid	3050B	
480-147994-11	SB - 4 (5' - 10')	Total/NA	Solid	3050B	
480-147994-13	SB - 5 (5' - 10')	Total/NA	Solid	3050B	
480-147994-17	SB - 6 (5' - 10')	Total/NA	Solid	3050B	
MB 480-455541/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-455541/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 455926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-1	SB - 2 (0' - 5')	Total/NA	Solid	6010C	455541
480-147994-5	SB - 3 (0' - 5')	Total/NA	Solid	6010C	455541
480-147994-11	SB - 4 (5' - 10')	Total/NA	Solid	6010C	455541
480-147994-13	SB - 5 (5' - 10')	Total/NA	Solid	6010C	455541
480-147994-17	SB - 6 (5' - 10')	Total/NA	Solid	6010C	455541
MB 480-455541/1-A	Method Blank	Total/NA	Solid	6010C	455541
LCSSRM 480-455541/2-A	Lab Control Sample	Total/NA	Solid	6010C	455541

Analysis Batch: 455934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-455541/1-A	Method Blank	Total/NA	Solid	6010C	455541

Prep Batch: 456040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-1	SB - 2 (0' - 5')	Total/NA	Solid	7471B	
480-147994-5	SB - 3 (0' - 5')	Total/NA	Solid	7471B	
480-147994-11	SB - 4 (5' - 10')	Total/NA	Solid	7471B	
480-147994-13	SB - 5 (5' - 10')	Total/NA	Solid	7471B	

TestAmerica Buffalo

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Metals (Continued)

Prep Batch: 456040 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-17	SB - 6 (5' - 10')	Total/NA	Solid	7471B	
MB 480-456040/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-456040/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 456060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-11	SB - 4 (5' - 10')	Total/NA	Solid	6010C	455541
480-147994-17	SB - 6 (5' - 10')	Total/NA	Solid	6010C	455541

Analysis Batch: 456102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-1	SB - 2 (0' - 5')	Total/NA	Solid	7471B	456040
480-147994-5	SB - 3 (0' - 5')	Total/NA	Solid	7471B	456040
480-147994-11	SB - 4 (5' - 10')	Total/NA	Solid	7471B	456040
480-147994-13	SB - 5 (5' - 10')	Total/NA	Solid	7471B	456040
480-147994-17	SB - 6 (5' - 10')	Total/NA	Solid	7471B	456040
MB 480-456040/1-A	Method Blank	Total/NA	Solid	7471B	456040
LCSSRM 480-456040/2-A ^10	Lab Control Sample	Total/NA	Solid	7471B	456040

General Chemistry

Analysis Batch: 455518

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-3	SB - 2 (5' - 10')	Total/NA	Solid	Moisture	
480-147994-4	SB - 2 (10' - 15')	Total/NA	Solid	Moisture	
480-147994-7	SB - 3 (10' - 15')	Total/NA	Solid	Moisture	
480-147994-8	SB - 3 (15' - 20')	Total/NA	Solid	Moisture	
480-147994-9	SB - 4 (0' - 5')	Total/NA	Solid	Moisture	
480-147994-10	SB - 4 (10' - 15')	Total/NA	Solid	Moisture	
480-147994-15	SB - 5 (5' - 10')	Total/NA	Solid	Moisture	
480-147994-16	SB - 5 (10' - 15')	Total/NA	Solid	Moisture	
480-147994-19	SB - 6 (5' - 10')	Total/NA	Solid	Moisture	
480-147994-20	SB - 6 (10' - 15')	Total/NA	Solid	Moisture	
480-147994-20 MS	SB - 6 (10' - 15')	Total/NA	Solid	Moisture	
480-147994-20 MSD	SB - 6 (10' - 15')	Total/NA	Solid	Moisture	

Analysis Batch: 455664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-147994-1	SB - 2 (0' - 5')	Total/NA	Solid	Moisture	
480-147994-2	SB - 2 (0' - 5')	Total/NA	Solid	Moisture	
480-147994-5	SB - 3 (0' - 5')	Total/NA	Solid	Moisture	
480-147994-6	SB - 3 (0' - 5')	Total/NA	Solid	Moisture	
480-147994-11	SB - 4 (5' - 10')	Total/NA	Solid	Moisture	
480-147994-12	SB - 4 (5' - 10')	Total/NA	Solid	Moisture	
480-147994-13	SB - 5 (5' - 10')	Total/NA	Solid	Moisture	
480-147994-14	SB - 5 (5' - 10')	Total/NA	Solid	Moisture	
480-147994-17	SB - 6 (5' - 10')	Total/NA	Solid	Moisture	
480-147994-18	SB - 6 (5' - 10')	Total/NA	Solid	Moisture	

TestAmerica Buffalo

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 2 (0' - 5')

Lab Sample ID: 480-147994-1

Date Collected: 01/16/19 09:00

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455664	01/18/19 10:26	KPK	TAL BUF

Client Sample ID: SB - 2 (0' - 5')

Lab Sample ID: 480-147994-1

Date Collected: 01/16/19 09:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			455541	01/18/19 10:20	JMP	TAL BUF
Total/NA	Analysis	6010C		1	455926	01/21/19 11:39	LMH	TAL BUF
Total/NA	Prep	7471B			456040	01/22/19 11:10	BMB	TAL BUF
Total/NA	Analysis	7471B		1	456102	01/22/19 14:07	BMB	TAL BUF

Client Sample ID: SB - 2 (0' - 5')

Lab Sample ID: 480-147994-2

Date Collected: 01/16/19 09:00

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455664	01/18/19 10:26	KPK	TAL BUF

Client Sample ID: SB - 2 (0' - 5')

Lab Sample ID: 480-147994-2

Date Collected: 01/16/19 09:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			455529	01/17/19 14:43	ATG	TAL BUF
Total/NA	Analysis	8270D		1	455698	01/18/19 21:09	RJS	TAL BUF

Client Sample ID: SB - 2 (5' - 10')

Lab Sample ID: 480-147994-3

Date Collected: 01/16/19 09:10

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455518	01/17/19 14:20	AMM	TAL BUF

Client Sample ID: SB - 2 (5' - 10')

Lab Sample ID: 480-147994-3

Date Collected: 01/16/19 09:10

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 90.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			455567	01/17/19 05:30	AEM	TAL BUF
Total/NA	Analysis	8260C		1	455561	01/18/19 03:39	CDC	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 2 (10' -15')

Lab Sample ID: 480-147994-4

Date Collected: 01/16/19 09:20

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455518	01/17/19 14:20	AMM	TAL BUF

Client Sample ID: SB - 2 (10' -15')

Lab Sample ID: 480-147994-4

Date Collected: 01/16/19 09:20

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 89.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			455567	01/17/19 05:30	AEM	TAL BUF
Total/NA	Analysis	8260C		1	455561	01/18/19 04:05	CDC	TAL BUF

Client Sample ID: SB - 3 (0' - 5')

Lab Sample ID: 480-147994-5

Date Collected: 01/16/19 10:00

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455664	01/18/19 10:26	KPK	TAL BUF

Client Sample ID: SB - 3 (0' - 5')

Lab Sample ID: 480-147994-5

Date Collected: 01/16/19 10:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 91.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			455541	01/18/19 10:20	JMP	TAL BUF
Total/NA	Analysis	6010C		1	455926	01/21/19 11:43	LMH	TAL BUF
Total/NA	Prep	7471B			456040	01/22/19 11:10	BMB	TAL BUF
Total/NA	Analysis	7471B		1	456102	01/22/19 14:08	BMB	TAL BUF

Client Sample ID: SB - 3 (0' - 5')

Lab Sample ID: 480-147994-6

Date Collected: 01/16/19 10:00

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455664	01/18/19 10:26	KPK	TAL BUF

Client Sample ID: SB - 3 (0' - 5')

Lab Sample ID: 480-147994-6

Date Collected: 01/16/19 10:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			455529	01/17/19 14:43	ATG	TAL BUF
Total/NA	Analysis	8270D		1	455698	01/18/19 19:44	RJS	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB -3 (10' - 15')

Lab Sample ID: 480-147994-7

Date Collected: 01/16/19 10:20

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455518	01/17/19 14:20	AMM	TAL BUF

Client Sample ID: SB -3 (10' - 15')

Lab Sample ID: 480-147994-7

Date Collected: 01/16/19 10:20

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_H			455862	01/21/19 08:33	AMM	TAL BUF
Total/NA	Analysis	8260C		1	455839	01/21/19 18:50	AEM	TAL BUF

Client Sample ID: SB -3 (15' - 20')

Lab Sample ID: 480-147994-8

Date Collected: 01/16/19 10:20

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455518	01/17/19 14:20	AMM	TAL BUF

Client Sample ID: SB -3 (15' - 20')

Lab Sample ID: 480-147994-8

Date Collected: 01/16/19 10:20

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 93.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_H			455862	01/21/19 08:33	AMM	TAL BUF
Total/NA	Analysis	8260C		4	455839	01/21/19 18:23	AEM	TAL BUF

Client Sample ID: SB -4 (0' - 5')

Lab Sample ID: 480-147994-9

Date Collected: 01/16/19 11:45

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455518	01/17/19 14:20	AMM	TAL BUF

Client Sample ID: SB -4 (0' - 5')

Lab Sample ID: 480-147994-9

Date Collected: 01/16/19 11:45

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			455567	01/17/19 05:30	AEM	TAL BUF
Total/NA	Analysis	8260C		1	455561	01/18/19 04:31	CDC	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 4 (10' - 15')

Lab Sample ID: 480-147994-10

Date Collected: 01/16/19 11:50

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455518	01/17/19 14:20	AMM	TAL BUF

Client Sample ID: SB - 4 (10' - 15')

Lab Sample ID: 480-147994-10

Date Collected: 01/16/19 11:50

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 91.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_H			455862	01/21/19 08:33	AMM	TAL BUF
Total/NA	Analysis	8260C		1	455839	01/21/19 17:56	AEM	TAL BUF

Client Sample ID: SB - 4 (5' - 10')

Lab Sample ID: 480-147994-11

Date Collected: 01/16/19 12:00

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455664	01/18/19 10:26	KPK	TAL BUF

Client Sample ID: SB - 4 (5' - 10')

Lab Sample ID: 480-147994-11

Date Collected: 01/16/19 12:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			455541	01/18/19 10:20	JMP	TAL BUF
Total/NA	Analysis	6010C		1	455926	01/21/19 11:47	LMH	TAL BUF
Total/NA	Prep	3050B			455541	01/18/19 10:20	JMP	TAL BUF
Total/NA	Analysis	6010C		5	456060	01/22/19 10:47	LMH	TAL BUF
Total/NA	Prep	7471B			456040	01/22/19 11:10	BMB	TAL BUF
Total/NA	Analysis	7471B		1	456102	01/22/19 14:09	BMB	TAL BUF

Client Sample ID: SB -4 (5' - 10')

Lab Sample ID: 480-147994-12

Date Collected: 01/16/19 12:00

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455664	01/18/19 10:26	KPK	TAL BUF

Client Sample ID: SB -4 (5' - 10')

Lab Sample ID: 480-147994-12

Date Collected: 01/16/19 12:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			455529	01/17/19 14:43	ATG	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB -4 (5' - 10')

Lab Sample ID: 480-147994-12

Date Collected: 01/16/19 12:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8270D		5	455698	01/18/19 21:38	RJS	TAL BUF

Client Sample ID: SB - 5 (5' - 10')

Lab Sample ID: 480-147994-13

Date Collected: 01/16/19 13:45

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455664	01/18/19 10:26	KPK	TAL BUF

Client Sample ID: SB - 5 (5' - 10')

Lab Sample ID: 480-147994-13

Date Collected: 01/16/19 13:45

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 90.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			455541	01/18/19 10:20	JMP	TAL BUF
Total/NA	Analysis	6010C		1	455926	01/21/19 11:51	LMH	TAL BUF
Total/NA	Prep	7471B			456040	01/22/19 11:10	BMB	TAL BUF
Total/NA	Analysis	7471B		1	456102	01/22/19 14:10	BMB	TAL BUF

Client Sample ID: SB - 5 (5' - 10')

Lab Sample ID: 480-147994-14

Date Collected: 01/16/19 13:45

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455664	01/18/19 10:26	KPK	TAL BUF

Client Sample ID: SB - 5 (5' - 10')

Lab Sample ID: 480-147994-14

Date Collected: 01/16/19 13:45

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 89.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			455529	01/17/19 14:43	ATG	TAL BUF
Total/NA	Analysis	8270D		1	455698	01/18/19 22:06	RJS	TAL BUF

Client Sample ID: SB - 5 (5' - 10')

Lab Sample ID: 480-147994-15

Date Collected: 01/16/19 14:00

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455518	01/17/19 14:20	AMM	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 5 (5' - 10')

Lab Sample ID: 480-147994-15

Date Collected: 01/16/19 14:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 92.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			455567	01/17/19 05:30	AEM	TAL BUF
Total/NA	Analysis	8260C		1	455561	01/18/19 04:57	CDC	TAL BUF

Client Sample ID: SB - 5 (10' - 15')

Lab Sample ID: 480-147994-16

Date Collected: 01/16/19 14:15

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455518	01/17/19 14:20	AMM	TAL BUF

Client Sample ID: SB - 5 (10' - 15')

Lab Sample ID: 480-147994-16

Date Collected: 01/16/19 14:15

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			455567	01/17/19 05:30	AEM	TAL BUF
Total/NA	Analysis	8260C		1	455561	01/18/19 05:23	CDC	TAL BUF

Client Sample ID: SB - 6 (5' -10')

Lab Sample ID: 480-147994-17

Date Collected: 01/16/19 14:30

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455664	01/18/19 10:26	KPK	TAL BUF

Client Sample ID: SB - 6 (5' -10')

Lab Sample ID: 480-147994-17

Date Collected: 01/16/19 14:30

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 89.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			455541	01/18/19 10:20	JMP	TAL BUF
Total/NA	Analysis	6010C		1	455926	01/21/19 11:55	LMH	TAL BUF
Total/NA	Prep	3050B			455541	01/18/19 10:20	JMP	TAL BUF
Total/NA	Analysis	6010C		5	456060	01/22/19 10:51	LMH	TAL BUF
Total/NA	Prep	7471B			456040	01/22/19 11:10	BMB	TAL BUF
Total/NA	Analysis	7471B		1	456102	01/22/19 14:12	BMB	TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Client Sample ID: SB - 6 (5' - 10')

Lab Sample ID: 480-147994-18

Date Collected: 01/16/19 14:30

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455664	01/18/19 10:26	KPK	TAL BUF

Client Sample ID: SB - 6 (5' - 10')

Lab Sample ID: 480-147994-18

Date Collected: 01/16/19 14:30

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550C			455529	01/17/19 14:43	ATG	TAL BUF
Total/NA	Analysis	8270D		1	455698	01/18/19 22:33	RJS	TAL BUF

Client Sample ID: SB - 6 (5' - 10')

Lab Sample ID: 480-147994-19

Date Collected: 01/16/19 15:00

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455518	01/17/19 14:20	AMM	TAL BUF

Client Sample ID: SB - 6 (5' - 10')

Lab Sample ID: 480-147994-19

Date Collected: 01/16/19 15:00

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			455567	01/17/19 05:30	AEM	TAL BUF
Total/NA	Analysis	8260C		1	455561	01/18/19 05:49	CDC	TAL BUF

Client Sample ID: SB - 6 (10' - 15')

Lab Sample ID: 480-147994-20

Date Collected: 01/16/19 14:45

Matrix: Solid

Date Received: 01/17/19 00:16

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	455518	01/17/19 14:20	AMM	TAL BUF

Client Sample ID: SB - 6 (10' - 15')

Lab Sample ID: 480-147994-20

Date Collected: 01/16/19 14:45

Matrix: Solid

Date Received: 01/17/19 00:16

Percent Solids: 90.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A_L			455567	01/17/19 05:30	AEM	TAL BUF
Total/NA	Analysis	8260C		1	455561	01/18/19 06:15	CDC	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Laboratory: TestAmerica Buffalo

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-19

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids



Method Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7471B	Mercury (CVAA)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF
3050B	Preparation, Metals	SW846	TAL BUF
3550C	Ultrasonic Extraction	SW846	TAL BUF
5035A_H	Closed System Purge and Trap	SW846	TAL BUF
5035A_L	Closed System Purge and Trap	SW846	TAL BUF
7471B	Preparation, Mercury	SW846	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-147994-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-147994-1	SB - 2 (0' - 5')	Solid	01/16/19 09:00	01/17/19 00:16
480-147994-2	SB - 2 (0' - 5')	Solid	01/16/19 09:00	01/17/19 00:16
480-147994-3	SB - 2 (5' - 10')	Solid	01/16/19 09:10	01/17/19 00:16
480-147994-4	SB - 2 (10' - 15')	Solid	01/16/19 09:20	01/17/19 00:16
480-147994-5	SB - 3 (0' - 5')	Solid	01/16/19 10:00	01/17/19 00:16
480-147994-6	SB - 3 (0' - 5')	Solid	01/16/19 10:00	01/17/19 00:16
480-147994-7	SB - 3 (10' - 15')	Solid	01/16/19 10:20	01/17/19 00:16
480-147994-8	SB - 3 (15' - 20')	Solid	01/16/19 10:20	01/17/19 00:16
480-147994-9	SB - 4 (0' - 5')	Solid	01/16/19 11:45	01/17/19 00:16
480-147994-10	SB - 4 (10' - 15')	Solid	01/16/19 11:50	01/17/19 00:16
480-147994-11	SB - 4 (5' - 10')	Solid	01/16/19 12:00	01/17/19 00:16
480-147994-12	SB - 4 (5' - 10')	Solid	01/16/19 12:00	01/17/19 00:16
480-147994-13	SB - 5 (5' - 10')	Solid	01/16/19 13:45	01/17/19 00:16
480-147994-14	SB - 5 (5' - 10')	Solid	01/16/19 13:45	01/17/19 00:16
480-147994-15	SB - 5 (5' - 10')	Solid	01/16/19 14:00	01/17/19 00:16
480-147994-16	SB - 5 (10' - 15')	Solid	01/16/19 14:15	01/17/19 00:16
480-147994-17	SB - 6 (5' - 10')	Solid	01/16/19 14:30	01/17/19 00:16
480-147994-18	SB - 6 (5' - 10')	Solid	01/16/19 14:30	01/17/19 00:16
480-147994-19	SB - 6 (5' - 10')	Solid	01/16/19 15:00	01/17/19 00:16
480-147994-20	SB - 6 (10' - 15')	Solid	01/16/19 14:45	01/17/19 00:16

#225



Client Information	Sampler: <u>Wayne Randall</u>	Lab PM: <u>Stone, Judy L.</u>	Carrier Tracking No(s):
Client Contact: <u>Matt Walker</u>	Phone: <u>(315) 794-8360 2</u>	E-Mail: <u>judy.stone@testamericainc.com</u>	

Company: <u>C&S Engineers, Inc.</u>	Due Date Requested:
Address: <u>499 Col. Eileen Collins Blvd</u>	TAT Requested (days): <u>Standard</u>
City: <u>Syracuse</u>	PO #:
State, Zip: <u>NY, 13212</u>	Purchase Order Requested
Phone: <u>315-703-4323(Tel)</u>	WO #:
Email: <u>mawalker@cscos.com</u>	Project #: <u>48019328</u>
Project Name: <u>Former Zip Zip Mini Mart Site</u>	SSOW#:
Site:	

Analysis Requested

480-147994 Chain of Custody

- Preservation Codes:**
- | | |
|-------------------|-----------------------|
| A - HCL | M - Hexane |
| B - NaOH | N - None |
| C - Zn Acetate | O - AsNaO2 |
| D - Nitric Acid | P - Na2O4S |
| E - NaHSO4 | Q - Na2SO3 |
| F - MeOH | R - Na2S2O3 |
| G - Amchlor | S - H2SO4 |
| H - Ascorbic Acid | T - TSP Dodecahydrate |
| I - Ice | U - Acetone |
| J - DI Water | V - MCAA |
| K - EDTA | W - pH 4-5 |
| L - EDA | Z - other (specify) |

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastefoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested				Total Number of containers	Special Instructions/Note:
							6010C, 7471B	8270D - TCL SVOA - OLM04.2	8260C - TCL list OLM04.2	8081B, 8151A, 8270D		
				Preservation Code:	X	X	N	N	N	N		
SB-4 (5'-10')	1-16-19	12:00		Solid				X				
SB-5 (5'-10')	1-16-19	13:45		Solid		X						
SB-5 (5'-10')	1-16-19	13:45		Solid			X					
SB-5 (5'-10')	1-16-19	14:00		Solid				X				
SB-5 (10'-15')	1-16-19	14:15		Solid				X				
SB-6 (5'-10')	1-16-19	14:30		Solid		X						
SB-6 (5'-10')	1-16-19	14:30		Solid			X					
SB-6 (5'-10')	1-16-19	15:00		Solid				X				
SB-6 (10'-15')	1-16-19	14:45		Solid	X		X					
				Solid								
				Solid								

Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months
Deliverable Requested: I, II, III, <input checked="" type="checkbox"/> Other (specify)	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: <u>Angel Alexo Alexo</u>	Date/Time: <u>1/16/19 15:35</u>	Company: <u>C+S</u>	Received by: <u>[Signature]</u>
Relinquished by: <u>REAGLICH</u>	Date/Time: <u>1-16-19, 19:00</u>	Company: <u>Syn</u>	Date/Time: <u>01/17/19 01:00</u>
Relinquished by:	Date/Time:	Company:	Received by:

Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: <u>1.8 #1</u>
---	-------------------	---



Client Information		Sampler: <u>Wayne Randall</u>		Lab PM: Stone, Judy L		Carrier Tracking No(s):		COC No: 480-122575-28123.1	
Client Contact: Matt Walker		Phone: (315) 794-8362		E-Mail: judy.stone@testamericainc.com				Page: Page 1 of 2	
Company: C&S Engineers, Inc.		Address: 499 Col. Eileen Collins Blvd		City: Syracuse		State, Zip: NY, 13212		Due Date Requested:	
Phone: 315-703-4323(Tel)		Email: mawalker@cscos.com		Project Name: Former Zip Zip Mini Mart Site		Site:		TAT Requested (days): <u>Standard</u>	
Project Name: Former Zip Zip Mini Mart Site		Project #: 48019328		SSOW#:		Analysis Requested		Preservation Codes:	
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/soil, BT=Tissue, A=Air)	
Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers		Special Instructions/Note:		Other:	
6010C, 7471B		8270D - TCL SVQA - OLM04.2		8280C - TCL list OLM04.2		8081B, 8151A, 8270D		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Preservation Code:		N		N		N		N	
SB-2 (0'-5')		1-16-19		9:00		Solid		X	
SB-2 (0'-5')		1-16-19		9:00		Solid		X	
SB-2 (5'-10')		1-16-19		9:10		Solid		X	
SB-2 (10'-15')		1-16-19		9:20		Solid		X	
SB-3 (0'-5')		1-16-19		10:00		Solid		X	
SB-3 (0'-5')		1-16-19		10:00		Solid		X	
SB-3 (10'-15')		1-16-19		10:20		Solid		X	
SB-3 (15'-20')		1-16-19		10:20		Solid		X	
SB-4 (5'-10')		1-16-19		11:45		Solid		X	
SB-4 (10'-15')		1-16-19		11:50		Solid		X	
SB-4 (5'-10')		1-16-19		12:00		Solid		X	
Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Return To Client		Disposal By Lab		Archive For _____ Months	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Deliverable Requested: I, II, III, <input checked="" type="checkbox"/> IV Other (specify)		Special Instructions/QC Requirements:					
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: <u>Angel Alexo</u>		Date/Time: <u>1/16/19 15:35</u>		Company: <u>CS</u>		Received by: <u>[Signature]</u>		Date/Time: <u>1/16/19 15:35</u>	
Relinquished by: <u>RE [Signature]</u>		Date/Time: <u>1-16-19, 19:00</u>		Company: <u>Syr</u>		Received by: <u>[Signature]</u>		Date/Time: <u>01/19/19 09:00</u>	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <u>1.8</u>				#/	



Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-147994-1

Login Number: 147994

List Source: TestAmerica Buffalo

List Number: 1

Creator: Velickovic, Zoran

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	Freezer 1/17/19 @ 0530
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	C&S Engineers, Inc.
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-148126-1

TestAmerica Sample Delivery Group: 119.412.009

Client Project/Site: Former Zip Zip Mini Mart Site

For:

C&S Engineers, Inc.

499 Col. Eileen Collins Blvd

Syracuse, New York 13212

Attn: Matt Walker



Authorized for release by:

1/25/2019 5:50:26 PM

Judy Stone, Senior Project Manager

(484)685-0868

judy.stone@testamericainc.com

LINKS

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Job ID: 480-148126-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-148126-1

Receipt

The samples were received on 1/19/2019 1:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.0° C.

Receipt Exceptions

The chain was not clear, but the client was contacted and the following samples do not get analyzed for dissolved metals: MW-4 (480-148126-2[MSJ]) and MW-4 (480-148126-2[MSD]).

GC/MS VOA

Method(s) 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: TW-1 (480-148126-1), MW-2 (480-148126-3) and DUPE (480-148126-4). Elevated reporting limits (RLs) are provided.

Method(s) 8260C: The following sample(s) were collected in properly preserved vials for analysis of volatile organic compounds (VOCs). However, the pH was outside the required criteria when verified by the laboratory, and corrective action was not possible: MW-2 (480-148126-3), DUPE (480-148126-4) and TW-2 (480-148126-5). The samples were analyzed within 7 days per EPA recommendation.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-456111 recovered above the upper control limit for 2,4-Dinitrophenol. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following sample is impacted: MW-4 (480-148126-2).

Method(s) 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 480-455841 and analytical batch 480-456111 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) 8270D: The following sample was diluted due to the nature of the sample matrix: TW-3 (480-148126-6). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010C: The following samples were diluted due to the presence of Calcium which interferes with Total Copper: TW-1 (480-148126-1) and TW-2 (480-148126-5). Elevated reporting limits (RLs) are provided.

Method(s) 6010C: The following samples were diluted due to the presence of Silicon which interferes with Total Lead: TW-1 (480-148126-1), MW-2 (480-148126-3), DUPE (480-148126-4), TW-2 (480-148126-5) and TW-3 (480-148126-6). Elevated reporting limits (RLs) are provided.

Method(s) 6010C: The Low Level Continuing Calibration Verification (CCVL 480-456665/39) recovered Dissolved Arsenic at 66%, which is below the quality control limits of 70-130%. Dissolved Arsenic results for samples MW-2 (480-148126-3), TW-2 (480-148126-5), TW-3 (480-148126-6), (480-148126-B-2-F MS), (480-148126-B-2-G MSD), (480-148126-B-2-E PDS) and (480-148126-B-2-E SD ^5) may be biased low, however Continuing Calibration Verifications (CCVs) associated with these samples are compliant.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-1

Lab Sample ID: 480-148126-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	120		8.0	3.3	ug/L	8		8260C	Total/NA
Cyclohexane	68		8.0	1.4	ug/L	8		8260C	Total/NA
Ethylbenzene	83		8.0	5.9	ug/L	8		8260C	Total/NA
Isopropylbenzene	6.4	J	8.0	6.3	ug/L	8		8260C	Total/NA
Methyl tert-butyl ether	4.3	J	8.0	1.3	ug/L	8		8260C	Total/NA
Toluene	48		8.0	4.1	ug/L	8		8260C	Total/NA
Xylenes, Total	440		16	5.3	ug/L	8		8260C	Total/NA
2,4-Dimethylphenol	6.4		5.2	0.52	ug/L	1		8270D	Total/NA
2-Methylphenol	0.97	J	5.2	0.42	ug/L	1		8270D	Total/NA
2-Methylnaphthalene	4.4	J	5.2	0.63	ug/L	1		8270D	Total/NA
4-Methylphenol	1.3	J	10	0.38	ug/L	1		8270D	Total/NA
Naphthalene	17		5.2	0.79	ug/L	1		8270D	Total/NA
Phenol	3.2	J	5.2	0.41	ug/L	1		8270D	Total/NA
Aluminum	193		0.20	0.060	mg/L	1		6010C	Total Recoverable
Antimony	0.0070	J	0.020	0.0068	mg/L	1		6010C	Total Recoverable
Arsenic	0.064		0.015	0.0056	mg/L	1		6010C	Total Recoverable
Barium	3.9		0.0020	0.00070	mg/L	1		6010C	Total Recoverable
Beryllium	0.0072		0.0020	0.00030	mg/L	1		6010C	Total Recoverable
Cadmium	0.0023		0.0020	0.00050	mg/L	1		6010C	Total Recoverable
Calcium	1660		2.5	0.50	mg/L	5		6010C	Total Recoverable
Chromium	0.32		0.0040	0.0010	mg/L	1		6010C	Total Recoverable
Cobalt	0.13		0.0040	0.00063	mg/L	1		6010C	Total Recoverable
Copper	0.28		0.050	0.0080	mg/L	5		6010C	Total Recoverable
Iron	222	B	0.050	0.019	mg/L	1		6010C	Total Recoverable
Lead	0.18		0.050	0.015	mg/L	5		6010C	Total Recoverable
Magnesium	820		1.0	0.22	mg/L	5		6010C	Total Recoverable
Manganese	5.0		0.0030	0.00040	mg/L	1		6010C	Total Recoverable
Nickel	0.60		0.010	0.0013	mg/L	1		6010C	Total Recoverable
Potassium	86.3		0.50	0.10	mg/L	1		6010C	Total Recoverable
Sodium	595		1.0	0.32	mg/L	1		6010C	Total Recoverable
Vanadium	0.31		0.0050	0.0015	mg/L	1		6010C	Total Recoverable
Zinc	0.46		0.010	0.0015	mg/L	1		6010C	Total Recoverable
Barium	1.2		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium	152		0.50	0.10	mg/L	1		6010C	Dissolved
Lead	0.0048	J	0.010	0.0030	mg/L	1		6010C	Dissolved
Magnesium	53.1		0.20	0.043	mg/L	1		6010C	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-1 (Continued)

Lab Sample ID: 480-148126-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.046		0.0030	0.00040	mg/L	1		6010C	Dissolved
Nickel	0.013		0.010	0.0013	mg/L	1		6010C	Dissolved
Potassium	12.3		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium	684		1.0	0.32	mg/L	1		6010C	Dissolved
Zinc	0.0043	J B	0.010	0.0015	mg/L	1		6010C	Dissolved
Mercury	0.00098		0.00020	0.00012	mg/L	1		7470A	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 480-148126-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.9	J	10	3.0	ug/L	1		8260C	Total/NA
Benzene	0.63	J	1.0	0.41	ug/L	1		8260C	Total/NA
Cyclohexane	1.0	F2 F1	1.0	0.18	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	35		1.0	0.16	ug/L	1		8260C	Total/NA
Methylcyclohexane	0.19	J F1 F2	1.0	0.16	ug/L	1		8260C	Total/NA
Aluminum	13.9	F2 F1	0.20	0.060	mg/L	1		6010C	Total Recoverable
Barium	3.4		0.0020	0.00070	mg/L	1		6010C	Total Recoverable
Beryllium	0.00049	J	0.0020	0.00030	mg/L	1		6010C	Total Recoverable
Calcium	290	F2	0.50	0.10	mg/L	1		6010C	Total Recoverable
Chromium	0.036	F2	0.0040	0.0010	mg/L	1		6010C	Total Recoverable
Cobalt	0.0060		0.0040	0.00063	mg/L	1		6010C	Total Recoverable
Copper	0.019		0.010	0.0016	mg/L	1		6010C	Total Recoverable
Iron	15.9	F2 F1 B	0.050	0.019	mg/L	1		6010C	Total Recoverable
Lead	0.017		0.010	0.0030	mg/L	1		6010C	Total Recoverable
Magnesium	164	F2	0.20	0.043	mg/L	1		6010C	Total Recoverable
Manganese	0.41	F2 F1	0.0030	0.00040	mg/L	1		6010C	Total Recoverable
Nickel	0.030		0.010	0.0013	mg/L	1		6010C	Total Recoverable
Potassium	13.7	F2 F1	0.50	0.10	mg/L	1		6010C	Total Recoverable
Sodium	292		1.0	0.32	mg/L	1		6010C	Total Recoverable
Vanadium	0.026		0.0050	0.0015	mg/L	1		6010C	Total Recoverable
Zinc	0.032		0.010	0.0015	mg/L	1		6010C	Total Recoverable
Barium	2.9		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium	182		0.50	0.10	mg/L	1		6010C	Dissolved
Magnesium	108		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese	0.058		0.0030	0.00040	mg/L	1		6010C	Dissolved
Nickel	0.0060	J	0.010	0.0013	mg/L	1		6010C	Dissolved
Potassium	7.9		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium	288		1.0	0.32	mg/L	1		6010C	Dissolved

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: MW-2

Lab Sample ID: 480-148126-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	73		2.0	0.32	ug/L	2		8260C	Total/NA
Aluminum	65.2		0.20	0.060	mg/L	1		6010C	Total Recoverable
Arsenic	0.014	J	0.015	0.0056	mg/L	1		6010C	Total Recoverable
Barium	3.6		0.0020	0.00070	mg/L	1		6010C	Total Recoverable
Beryllium	0.0024		0.0020	0.00030	mg/L	1		6010C	Total Recoverable
Cadmium	0.0011	J	0.0020	0.00050	mg/L	1		6010C	Total Recoverable
Calcium	604		0.50	0.10	mg/L	1		6010C	Total Recoverable
Chromium	0.20		0.0040	0.0010	mg/L	1		6010C	Total Recoverable
Cobalt	0.044		0.0040	0.00063	mg/L	1		6010C	Total Recoverable
Copper	0.080		0.010	0.0016	mg/L	1		6010C	Total Recoverable
Iron	72.1	B	0.050	0.019	mg/L	1		6010C	Total Recoverable
Lead	0.054		0.020	0.0060	mg/L	2		6010C	Total Recoverable
Magnesium	331		0.20	0.043	mg/L	1		6010C	Total Recoverable
Manganese	1.8		0.0030	0.00040	mg/L	1		6010C	Total Recoverable
Nickel	0.19		0.010	0.0013	mg/L	1		6010C	Total Recoverable
Potassium	32.9		0.50	0.10	mg/L	1		6010C	Total Recoverable
Sodium	371		1.0	0.32	mg/L	1		6010C	Total Recoverable
Vanadium	0.12		0.0050	0.0015	mg/L	1		6010C	Total Recoverable
Zinc	0.15		0.010	0.0015	mg/L	1		6010C	Total Recoverable
Barium	0.97		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium	205		0.50	0.10	mg/L	1		6010C	Dissolved
Cobalt	0.0034	J	0.0040	0.00063	mg/L	1		6010C	Dissolved
Lead	0.0035	J	0.010	0.0030	mg/L	1		6010C	Dissolved
Magnesium	105		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese	0.25		0.0030	0.00040	mg/L	1		6010C	Dissolved
Nickel	0.022		0.010	0.0013	mg/L	1		6010C	Dissolved
Potassium	9.1		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium	386		1.0	0.32	mg/L	1		6010C	Dissolved
Zinc	0.0065	J B	0.010	0.0015	mg/L	1		6010C	Dissolved
Mercury	0.00015	J	0.00020	0.00012	mg/L	1		7470A	Total/NA

Client Sample ID: DUPE

Lab Sample ID: 480-148126-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.2	J	20	6.0	ug/L	2		8260C	Total/NA
Methyl tert-butyl ether	71		2.0	0.32	ug/L	2		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: DUPE (Continued)

Lab Sample ID: 480-148126-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	61.5		0.20	0.060	mg/L	1		6010C	Total Recoverable
Arsenic	0.015		0.015	0.0056	mg/L	1		6010C	Total Recoverable
Barium	3.6		0.0020	0.00070	mg/L	1		6010C	Total Recoverable
Beryllium	0.0022		0.0020	0.00030	mg/L	1		6010C	Total Recoverable
Cadmium	0.00098	J	0.0020	0.00050	mg/L	1		6010C	Total Recoverable
Calcium	616		0.50	0.10	mg/L	1		6010C	Total Recoverable
Chromium	0.19		0.0040	0.0010	mg/L	1		6010C	Total Recoverable
Cobalt	0.042		0.0040	0.00063	mg/L	1		6010C	Total Recoverable
Copper	0.073		0.010	0.0016	mg/L	1		6010C	Total Recoverable
Iron	69.8	B	0.050	0.019	mg/L	1		6010C	Total Recoverable
Lead	0.048		0.020	0.0060	mg/L	2		6010C	Total Recoverable
Magnesium	334		0.20	0.043	mg/L	1		6010C	Total Recoverable
Manganese	1.8		0.0030	0.00040	mg/L	1		6010C	Total Recoverable
Nickel	0.19		0.010	0.0013	mg/L	1		6010C	Total Recoverable
Potassium	30.9		0.50	0.10	mg/L	1		6010C	Total Recoverable
Sodium	371		1.0	0.32	mg/L	1		6010C	Total Recoverable
Vanadium	0.11		0.0050	0.0015	mg/L	1		6010C	Total Recoverable
Zinc	0.14		0.010	0.0015	mg/L	1		6010C	Total Recoverable
Mercury	0.00017	J	0.00020	0.00012	mg/L	1		7470A	Total/NA

Client Sample ID: TW-2

Lab Sample ID: 480-148126-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.2	J	10	3.0	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	14		1.0	0.16	ug/L	1		8260C	Total/NA
Aluminum	223		0.20	0.060	mg/L	1		6010C	Total Recoverable
Antimony	0.0095	J	0.020	0.0068	mg/L	1		6010C	Total Recoverable
Arsenic	0.071		0.015	0.0056	mg/L	1		6010C	Total Recoverable
Barium	2.8		0.0020	0.00070	mg/L	1		6010C	Total Recoverable
Beryllium	0.0084		0.0020	0.00030	mg/L	1		6010C	Total Recoverable
Cadmium	0.0026		0.0020	0.00050	mg/L	1		6010C	Total Recoverable
Calcium	2280		2.5	0.50	mg/L	5		6010C	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-2 (Continued)

Lab Sample ID: 480-148126-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	0.37		0.0040	0.0010	mg/L	1		6010C	Total Recoverable
Cobalt	0.16		0.0040	0.00063	mg/L	1		6010C	Total Recoverable
Copper	0.38		0.050	0.0080	mg/L	5		6010C	Total Recoverable
Iron	265	B	0.050	0.019	mg/L	1		6010C	Total Recoverable
Lead	0.18		0.050	0.015	mg/L	5		6010C	Total Recoverable
Magnesium	1240		1.0	0.22	mg/L	5		6010C	Total Recoverable
Manganese	5.7		0.0030	0.00040	mg/L	1		6010C	Total Recoverable
Nickel	0.73		0.010	0.0013	mg/L	1		6010C	Total Recoverable
Potassium	90.2		0.50	0.10	mg/L	1		6010C	Total Recoverable
Sodium	190		1.0	0.32	mg/L	1		6010C	Total Recoverable
Vanadium	0.35		0.0050	0.0015	mg/L	1		6010C	Total Recoverable
Zinc	0.56		0.010	0.0015	mg/L	1		6010C	Total Recoverable
Barium	0.84		0.0020	0.00070	mg/L	1		6010C	Dissolved
Calcium	174		0.50	0.10	mg/L	1		6010C	Dissolved
Cobalt	0.0032	J	0.0040	0.00063	mg/L	1		6010C	Dissolved
Lead	0.0030	J	0.010	0.0030	mg/L	1		6010C	Dissolved
Magnesium	92.6		0.20	0.043	mg/L	1		6010C	Dissolved
Manganese	0.15		0.0030	0.00040	mg/L	1		6010C	Dissolved
Nickel	0.020		0.010	0.0013	mg/L	1		6010C	Dissolved
Potassium	8.3		0.50	0.10	mg/L	1		6010C	Dissolved
Sodium	224		1.0	0.32	mg/L	1		6010C	Dissolved
Zinc	0.0028	J B	0.010	0.0015	mg/L	1		6010C	Dissolved
Mercury	0.00078		0.00020	0.00012	mg/L	1		7470A	Total/NA

Client Sample ID: TW-3

Lab Sample ID: 480-148126-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.5	J	10	3.0	ug/L	1		8260C	Total/NA
Cyclohexane	0.72	J	1.0	0.18	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	0.70	J	1.0	0.16	ug/L	1		8260C	Total/NA
Aluminum	70.0		0.20	0.060	mg/L	1		6010C	Total Recoverable
Arsenic	0.038		0.015	0.0056	mg/L	1		6010C	Total Recoverable
Barium	1.8		0.0020	0.00070	mg/L	1		6010C	Total Recoverable
Beryllium	0.0038		0.0020	0.00030	mg/L	1		6010C	Total Recoverable
Cadmium	0.0041		0.0020	0.00050	mg/L	1		6010C	Total Recoverable
Calcium	758		0.50	0.10	mg/L	1		6010C	Total Recoverable

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Detection Summary

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
 SDG: 119.412.009

Client Sample ID: TW-3 (Continued)

Lab Sample ID: 480-148126-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chromium	0.14		0.0040	0.0010	mg/L	1			6010C	Total
Cobalt	0.054		0.0040	0.00063	mg/L	1			6010C	Recoverable Total
Copper	0.38		0.010	0.0016	mg/L	1			6010C	Recoverable Total
Iron	108	B	0.050	0.019	mg/L	1			6010C	Recoverable Total
Lead	0.22		0.050	0.015	mg/L	5			6010C	Recoverable Total
Magnesium	224		0.20	0.043	mg/L	1			6010C	Recoverable Total
Manganese	1.5		0.0030	0.00040	mg/L	1			6010C	Recoverable Total
Nickel	0.25		0.010	0.0013	mg/L	1			6010C	Recoverable Total
Potassium	38.3		0.50	0.10	mg/L	1			6010C	Recoverable Total
Sodium	1010		5.0	1.6	mg/L	5			6010C	Recoverable Total
Vanadium	0.22		0.0050	0.0015	mg/L	1			6010C	Recoverable Total
Zinc	0.67		0.010	0.0015	mg/L	1			6010C	Recoverable Total
Barium	0.59		0.0020	0.00070	mg/L	1			6010C	Dissolved
Calcium	371		0.50	0.10	mg/L	1			6010C	Dissolved
Cobalt	0.0013	J	0.0040	0.00063	mg/L	1			6010C	Dissolved
Magnesium	82.5		0.20	0.043	mg/L	1			6010C	Dissolved
Manganese	0.26		0.0030	0.00040	mg/L	1			6010C	Dissolved
Nickel	0.0068	J	0.010	0.0013	mg/L	1			6010C	Dissolved
Potassium	9.2		0.50	0.10	mg/L	1			6010C	Dissolved
Sodium	1040		5.0	1.6	mg/L	5			6010C	Dissolved
Zinc	0.020	B	0.010	0.0015	mg/L	1			6010C	Dissolved
Mercury	0.00032		0.00020	0.00012	mg/L	1			7470A	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-148126-7

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-1
Date Collected: 01/18/19 09:46
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-1
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		8.0	6.6	ug/L			01/19/19 17:08	8
1,1,2,2-Tetrachloroethane	ND		8.0	1.7	ug/L			01/19/19 17:08	8
1,1,2-Trichloroethane	ND		8.0	1.8	ug/L			01/19/19 17:08	8
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		8.0	2.5	ug/L			01/19/19 17:08	8
1,1-Dichloroethane	ND		8.0	3.0	ug/L			01/19/19 17:08	8
1,1-Dichloroethene	ND		8.0	2.3	ug/L			01/19/19 17:08	8
1,2,4-Trichlorobenzene	ND		8.0	3.3	ug/L			01/19/19 17:08	8
1,2-Dibromo-3-Chloropropane	ND		8.0	3.1	ug/L			01/19/19 17:08	8
1,2-Dichlorobenzene	ND		8.0	6.3	ug/L			01/19/19 17:08	8
1,2-Dichloroethane	ND		8.0	1.7	ug/L			01/19/19 17:08	8
1,2-Dichloropropane	ND		8.0	5.8	ug/L			01/19/19 17:08	8
1,3-Dichlorobenzene	ND		8.0	6.2	ug/L			01/19/19 17:08	8
1,4-Dichlorobenzene	ND		8.0	6.7	ug/L			01/19/19 17:08	8
2-Butanone (MEK)	ND		80	11	ug/L			01/19/19 17:08	8
2-Hexanone	ND		40	9.9	ug/L			01/19/19 17:08	8
4-Methyl-2-pentanone (MIBK)	ND		40	17	ug/L			01/19/19 17:08	8
Acetone	ND		80	24	ug/L			01/19/19 17:08	8
Benzene	120		8.0	3.3	ug/L			01/19/19 17:08	8
Bromodichloromethane	ND		8.0	3.1	ug/L			01/19/19 17:08	8
Bromoform	ND		8.0	2.1	ug/L			01/19/19 17:08	8
Bromomethane	ND		8.0	5.5	ug/L			01/19/19 17:08	8
Carbon disulfide	ND		8.0	1.5	ug/L			01/19/19 17:08	8
Carbon tetrachloride	ND		8.0	2.2	ug/L			01/19/19 17:08	8
Chlorobenzene	ND		8.0	6.0	ug/L			01/19/19 17:08	8
Dibromochloromethane	ND		8.0	2.6	ug/L			01/19/19 17:08	8
Chloroethane	ND		8.0	2.6	ug/L			01/19/19 17:08	8
Chloroform	ND		8.0	2.7	ug/L			01/19/19 17:08	8
Chloromethane	ND		8.0	2.8	ug/L			01/19/19 17:08	8
cis-1,2-Dichloroethene	ND		8.0	6.5	ug/L			01/19/19 17:08	8
cis-1,3-Dichloropropene	ND		8.0	2.9	ug/L			01/19/19 17:08	8
Cyclohexane	68		8.0	1.4	ug/L			01/19/19 17:08	8
Dichlorodifluoromethane	ND		8.0	5.4	ug/L			01/19/19 17:08	8
Ethylbenzene	83		8.0	5.9	ug/L			01/19/19 17:08	8
1,2-Dibromoethane	ND		8.0	5.8	ug/L			01/19/19 17:08	8
Isopropylbenzene	6.4 J		8.0	6.3	ug/L			01/19/19 17:08	8
Methyl acetate	ND		20	10	ug/L			01/19/19 17:08	8
Methyl tert-butyl ether	4.3 J		8.0	1.3	ug/L			01/19/19 17:08	8
Methylcyclohexane	ND		8.0	1.3	ug/L			01/19/19 17:08	8
Methylene Chloride	ND		8.0	3.5	ug/L			01/19/19 17:08	8
Styrene	ND		8.0	5.8	ug/L			01/19/19 17:08	8
Tetrachloroethene	ND		8.0	2.9	ug/L			01/19/19 17:08	8
Toluene	48		8.0	4.1	ug/L			01/19/19 17:08	8
trans-1,2-Dichloroethene	ND		8.0	7.2	ug/L			01/19/19 17:08	8
trans-1,3-Dichloropropene	ND		8.0	3.0	ug/L			01/19/19 17:08	8
Trichloroethene	ND		8.0	3.7	ug/L			01/19/19 17:08	8
Trichlorofluoromethane	ND		8.0	7.0	ug/L			01/19/19 17:08	8
Vinyl chloride	ND		8.0	7.2	ug/L			01/19/19 17:08	8
Xylenes, Total	440		16	5.3	ug/L			01/19/19 17:08	8

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-1
Date Collected: 01/18/19 09:46
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-1
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	106		80 - 120		01/19/19 17:08	8
1,2-Dichloroethane-d4 (Surr)	111		77 - 120		01/19/19 17:08	8
4-Bromofluorobenzene (Surr)	96		73 - 120		01/19/19 17:08	8
Dibromofluoromethane (Surr)	104		75 - 123		01/19/19 17:08	8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.2	0.68	ug/L		01/21/19 07:56	01/23/19 08:05	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		01/21/19 07:56	01/23/19 08:05	1
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		01/21/19 07:56	01/23/19 08:05	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		01/21/19 07:56	01/23/19 08:05	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		01/21/19 07:56	01/23/19 08:05	1
2,4-Dimethylphenol	6.4		5.2	0.52	ug/L		01/21/19 07:56	01/23/19 08:05	1
2,4-Dinitrophenol	ND		10	2.3	ug/L		01/21/19 07:56	01/23/19 08:05	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		01/21/19 07:56	01/23/19 08:05	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 08:05	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		01/21/19 07:56	01/23/19 08:05	1
2-Chlorophenol	ND		5.2	0.55	ug/L		01/21/19 07:56	01/23/19 08:05	1
2-Methylphenol	0.97	J	5.2	0.42	ug/L		01/21/19 07:56	01/23/19 08:05	1
2-Methylnaphthalene	4.4	J	5.2	0.63	ug/L		01/21/19 07:56	01/23/19 08:05	1
2-Nitroaniline	ND		10	0.44	ug/L		01/21/19 07:56	01/23/19 08:05	1
2-Nitrophenol	ND		5.2	0.50	ug/L		01/21/19 07:56	01/23/19 08:05	1
3,3'-Dichlorobenzidine	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 08:05	1
3-Nitroaniline	ND		10	0.50	ug/L		01/21/19 07:56	01/23/19 08:05	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		01/21/19 07:56	01/23/19 08:05	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		01/21/19 07:56	01/23/19 08:05	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		01/21/19 07:56	01/23/19 08:05	1
4-Chloroaniline	ND		5.2	0.61	ug/L		01/21/19 07:56	01/23/19 08:05	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		01/21/19 07:56	01/23/19 08:05	1
4-Methylphenol	1.3	J	10	0.38	ug/L		01/21/19 07:56	01/23/19 08:05	1
4-Nitroaniline	ND		10	0.26	ug/L		01/21/19 07:56	01/23/19 08:05	1
4-Nitrophenol	ND		10	1.6	ug/L		01/21/19 07:56	01/23/19 08:05	1
Acenaphthene	ND		5.2	0.43	ug/L		01/21/19 07:56	01/23/19 08:05	1
Acenaphthylene	ND		5.2	0.40	ug/L		01/21/19 07:56	01/23/19 08:05	1
Acetophenone	ND		5.2	0.56	ug/L		01/21/19 07:56	01/23/19 08:05	1
Anthracene	ND		5.2	0.29	ug/L		01/21/19 07:56	01/23/19 08:05	1
Atrazine	ND		5.2	0.48	ug/L		01/21/19 07:56	01/23/19 08:05	1
Benzaldehyde	ND		5.2	0.28	ug/L		01/21/19 07:56	01/23/19 08:05	1
Benzo[a]anthracene	ND		5.2	0.38	ug/L		01/21/19 07:56	01/23/19 08:05	1
Benzo[a]pyrene	ND		5.2	0.49	ug/L		01/21/19 07:56	01/23/19 08:05	1
Benzo[b]fluoranthene	ND		5.2	0.35	ug/L		01/21/19 07:56	01/23/19 08:05	1
Benzo[g,h,i]perylene	ND		5.2	0.36	ug/L		01/21/19 07:56	01/23/19 08:05	1
Benzo[k]fluoranthene	ND		5.2	0.76	ug/L		01/21/19 07:56	01/23/19 08:05	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		01/21/19 07:56	01/23/19 08:05	1
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 08:05	1
Bis(2-ethylhexyl) phthalate	ND		5.2	2.3	ug/L		01/21/19 07:56	01/23/19 08:05	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		01/21/19 07:56	01/23/19 08:05	1
Caprolactam	ND		5.2	2.3	ug/L		01/21/19 07:56	01/23/19 08:05	1
Carbazole	ND		5.2	0.31	ug/L		01/21/19 07:56	01/23/19 08:05	1
Chrysene	ND		5.2	0.34	ug/L		01/21/19 07:56	01/23/19 08:05	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-1
Date Collected: 01/18/19 09:46
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-1
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		5.2	0.44	ug/L		01/21/19 07:56	01/23/19 08:05	1
Di-n-butyl phthalate	ND		5.2	0.32	ug/L		01/21/19 07:56	01/23/19 08:05	1
Di-n-octyl phthalate	ND		5.2	0.49	ug/L		01/21/19 07:56	01/23/19 08:05	1
Dibenzofuran	ND		10	0.53	ug/L		01/21/19 07:56	01/23/19 08:05	1
Diethyl phthalate	ND		5.2	0.23	ug/L		01/21/19 07:56	01/23/19 08:05	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		01/21/19 07:56	01/23/19 08:05	1
Fluoranthene	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 08:05	1
Fluorene	ND		5.2	0.38	ug/L		01/21/19 07:56	01/23/19 08:05	1
Hexachlorobenzene	ND		5.2	0.53	ug/L		01/21/19 07:56	01/23/19 08:05	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		01/21/19 07:56	01/23/19 08:05	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		01/21/19 07:56	01/23/19 08:05	1
Hexachloroethane	ND		5.2	0.61	ug/L		01/21/19 07:56	01/23/19 08:05	1
Indeno[1,2,3-cd]pyrene	ND		5.2	0.49	ug/L		01/21/19 07:56	01/23/19 08:05	1
Isophorone	ND		5.2	0.45	ug/L		01/21/19 07:56	01/23/19 08:05	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		01/21/19 07:56	01/23/19 08:05	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		01/21/19 07:56	01/23/19 08:05	1
Naphthalene	17		5.2	0.79	ug/L		01/21/19 07:56	01/23/19 08:05	1
Nitrobenzene	ND		5.2	0.30	ug/L		01/21/19 07:56	01/23/19 08:05	1
Pentachlorophenol	ND		10	2.3	ug/L		01/21/19 07:56	01/23/19 08:05	1
Phenanthrene	ND		5.2	0.46	ug/L		01/21/19 07:56	01/23/19 08:05	1
Phenol	3.2	J	5.2	0.41	ug/L		01/21/19 07:56	01/23/19 08:05	1
Pyrene	ND		5.2	0.35	ug/L		01/21/19 07:56	01/23/19 08:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	83		46 - 120				01/21/19 07:56	01/23/19 08:05	1
Phenol-d5 (Surr)	51		22 - 120				01/21/19 07:56	01/23/19 08:05	1
p-Terphenyl-d14 (Surr)	79		59 - 136				01/21/19 07:56	01/23/19 08:05	1
2,4,6-Tribromophenol (Surr)	102		41 - 120				01/21/19 07:56	01/23/19 08:05	1
2-Fluorobiphenyl	91		48 - 120				01/21/19 07:56	01/23/19 08:05	1
2-Fluorophenol (Surr)	62		35 - 120				01/21/19 07:56	01/23/19 08:05	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	193		0.20	0.060	mg/L		01/21/19 08:30	01/21/19 18:48	1
Antimony	0.0070	J	0.020	0.0068	mg/L		01/21/19 08:30	01/21/19 18:48	1
Arsenic	0.064		0.015	0.0056	mg/L		01/21/19 08:30	01/21/19 18:48	1
Barium	3.9		0.0020	0.00070	mg/L		01/21/19 08:30	01/21/19 18:48	1
Beryllium	0.0072		0.0020	0.00030	mg/L		01/21/19 08:30	01/21/19 18:48	1
Cadmium	0.0023		0.0020	0.00050	mg/L		01/21/19 08:30	01/21/19 18:48	1
Calcium	1660		2.5	0.50	mg/L		01/21/19 08:30	01/21/19 18:53	5
Chromium	0.32		0.0040	0.0010	mg/L		01/21/19 08:30	01/21/19 18:48	1
Cobalt	0.13		0.0040	0.00063	mg/L		01/21/19 08:30	01/21/19 18:48	1
Copper	0.28		0.050	0.0080	mg/L		01/21/19 08:30	01/21/19 18:53	5
Iron	222	B	0.050	0.019	mg/L		01/21/19 08:30	01/21/19 18:48	1
Lead	0.18		0.050	0.015	mg/L		01/21/19 08:30	01/21/19 18:53	5
Magnesium	820		1.0	0.22	mg/L		01/21/19 08:30	01/21/19 18:53	5
Manganese	5.0		0.0030	0.00040	mg/L		01/21/19 08:30	01/21/19 18:48	1
Nickel	0.60		0.010	0.0013	mg/L		01/21/19 08:30	01/21/19 18:48	1
Potassium	86.3		0.50	0.10	mg/L		01/21/19 08:30	01/21/19 18:48	1
Selenium	ND		0.025	0.0087	mg/L		01/21/19 08:30	01/21/19 18:48	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-1
Date Collected: 01/18/19 09:46
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-1
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0060	0.0017	mg/L		01/21/19 08:30	01/21/19 18:48	1
Sodium	595		1.0	0.32	mg/L		01/21/19 08:30	01/21/19 18:48	1
Thallium	ND		0.020	0.010	mg/L		01/21/19 08:30	01/21/19 18:48	1
Vanadium	0.31		0.0050	0.0015	mg/L		01/21/19 08:30	01/21/19 18:48	1
Zinc	0.46		0.010	0.0015	mg/L		01/21/19 08:30	01/21/19 18:48	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		01/25/19 10:15	01/25/19 15:10	1
Antimony	ND		0.020	0.0068	mg/L		01/25/19 10:15	01/25/19 15:10	1
Arsenic	ND		0.015	0.0056	mg/L		01/25/19 10:15	01/25/19 15:10	1
Barium	1.2		0.0020	0.00070	mg/L		01/25/19 10:15	01/25/19 15:10	1
Beryllium	ND		0.0020	0.00030	mg/L		01/25/19 10:15	01/25/19 15:10	1
Cadmium	ND		0.0020	0.00050	mg/L		01/25/19 10:15	01/25/19 15:10	1
Calcium	152		0.50	0.10	mg/L		01/25/19 10:15	01/25/19 15:10	1
Chromium	ND		0.0040	0.0010	mg/L		01/25/19 10:15	01/25/19 15:10	1
Cobalt	ND		0.0040	0.00063	mg/L		01/25/19 10:15	01/25/19 15:10	1
Copper	ND		0.010	0.0016	mg/L		01/25/19 10:15	01/25/19 15:10	1
Iron	ND		0.050	0.019	mg/L		01/25/19 10:15	01/25/19 15:10	1
Lead	0.0048	J	0.010	0.0030	mg/L		01/25/19 10:15	01/25/19 15:10	1
Magnesium	53.1		0.20	0.043	mg/L		01/25/19 10:15	01/25/19 15:10	1
Manganese	0.046		0.0030	0.00040	mg/L		01/25/19 10:15	01/25/19 15:10	1
Nickel	0.013		0.010	0.0013	mg/L		01/25/19 10:15	01/25/19 15:10	1
Potassium	12.3		0.50	0.10	mg/L		01/25/19 10:15	01/25/19 15:10	1
Selenium	ND		0.025	0.0087	mg/L		01/25/19 10:15	01/25/19 15:10	1
Silver	ND		0.0060	0.0017	mg/L		01/25/19 10:15	01/25/19 15:10	1
Sodium	684		1.0	0.32	mg/L		01/25/19 10:15	01/25/19 15:10	1
Thallium	ND		0.020	0.010	mg/L		01/25/19 10:15	01/25/19 15:10	1
Vanadium	ND		0.0050	0.0015	mg/L		01/25/19 10:15	01/25/19 15:10	1
Zinc	0.0043	J B	0.010	0.0015	mg/L		01/25/19 10:15	01/25/19 15:10	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00098		0.00020	0.00012	mg/L		01/21/19 11:55	01/21/19 15:15	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		01/24/19 14:46	01/24/19 17:10	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: MW-4
Date Collected: 01/18/19 10:35
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-2
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	F1	1.0	0.82	ug/L			01/19/19 17:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/19/19 17:31	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/19/19 17:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	F1	1.0	0.31	ug/L			01/19/19 17:31	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/19/19 17:31	1
1,1-Dichloroethene	ND	F1	1.0	0.29	ug/L			01/19/19 17:31	1
1,2,4-Trichlorobenzene	ND	F1	1.0	0.41	ug/L			01/19/19 17:31	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/19/19 17:31	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/19/19 17:31	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/19/19 17:31	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/19/19 17:31	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/19/19 17:31	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/19/19 17:31	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/19/19 17:31	1
2-Hexanone	ND		5.0	1.2	ug/L			01/19/19 17:31	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/19/19 17:31	1
Acetone	5.9	J	10	3.0	ug/L			01/19/19 17:31	1
Benzene	0.63	J	1.0	0.41	ug/L			01/19/19 17:31	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/19/19 17:31	1
Bromoform	ND		1.0	0.26	ug/L			01/19/19 17:31	1
Bromomethane	ND		1.0	0.69	ug/L			01/19/19 17:31	1
Carbon disulfide	ND	F2	1.0	0.19	ug/L			01/19/19 17:31	1
Carbon tetrachloride	ND	F2 F1	1.0	0.27	ug/L			01/19/19 17:31	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/19/19 17:31	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/19/19 17:31	1
Chloroethane	ND		1.0	0.32	ug/L			01/19/19 17:31	1
Chloroform	ND		1.0	0.34	ug/L			01/19/19 17:31	1
Chloromethane	ND		1.0	0.35	ug/L			01/19/19 17:31	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/19/19 17:31	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/19/19 17:31	1
Cyclohexane	1.0	F2 F1	1.0	0.18	ug/L			01/19/19 17:31	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/19/19 17:31	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/19/19 17:31	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/19/19 17:31	1
Isopropylbenzene	ND	F1	1.0	0.79	ug/L			01/19/19 17:31	1
Methyl acetate	ND		2.5	1.3	ug/L			01/19/19 17:31	1
Methyl tert-butyl ether	35		1.0	0.16	ug/L			01/19/19 17:31	1
Methylcyclohexane	0.19	J F1 F2	1.0	0.16	ug/L			01/19/19 17:31	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/19/19 17:31	1
Styrene	ND		1.0	0.73	ug/L			01/19/19 17:31	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/19/19 17:31	1
Toluene	ND		1.0	0.51	ug/L			01/19/19 17:31	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/19/19 17:31	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/19/19 17:31	1
Trichloroethene	ND	F1	1.0	0.46	ug/L			01/19/19 17:31	1
Trichlorofluoromethane	ND	F1	1.0	0.88	ug/L			01/19/19 17:31	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/19/19 17:31	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/19/19 17:31	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: MW-4
Date Collected: 01/18/19 10:35
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-2
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	108		80 - 120		01/19/19 17:31	1
1,2-Dichloroethane-d4 (Surr)	112		77 - 120		01/19/19 17:31	1
4-Bromofluorobenzene (Surr)	101		73 - 120		01/19/19 17:31	1
Dibromofluoromethane (Surr)	113		75 - 123		01/19/19 17:31	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		01/21/19 07:56	01/23/19 01:18	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		01/21/19 07:56	01/23/19 01:18	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		01/21/19 07:56	01/23/19 01:18	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		01/21/19 07:56	01/23/19 01:18	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		01/21/19 07:56	01/23/19 01:18	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		01/21/19 07:56	01/23/19 01:18	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		01/21/19 07:56	01/23/19 01:18	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		01/21/19 07:56	01/23/19 01:18	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		01/21/19 07:56	01/23/19 01:18	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		01/21/19 07:56	01/23/19 01:18	1
2-Chlorophenol	ND		5.0	0.53	ug/L		01/21/19 07:56	01/23/19 01:18	1
2-Methylphenol	ND		5.0	0.40	ug/L		01/21/19 07:56	01/23/19 01:18	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		01/21/19 07:56	01/23/19 01:18	1
2-Nitroaniline	ND		10	0.42	ug/L		01/21/19 07:56	01/23/19 01:18	1
2-Nitrophenol	ND		5.0	0.48	ug/L		01/21/19 07:56	01/23/19 01:18	1
3,3'-Dichlorobenzidine	ND	F1 F2	5.0	0.40	ug/L		01/21/19 07:56	01/23/19 01:18	1
3-Nitroaniline	ND	F1	10	0.48	ug/L		01/21/19 07:56	01/23/19 01:18	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		01/21/19 07:56	01/23/19 01:18	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		01/21/19 07:56	01/23/19 01:18	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		01/21/19 07:56	01/23/19 01:18	1
4-Chloroaniline	ND		5.0	0.59	ug/L		01/21/19 07:56	01/23/19 01:18	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		01/21/19 07:56	01/23/19 01:18	1
4-Methylphenol	ND		10	0.36	ug/L		01/21/19 07:56	01/23/19 01:18	1
4-Nitroaniline	ND	F1	10	0.25	ug/L		01/21/19 07:56	01/23/19 01:18	1
4-Nitrophenol	ND		10	1.5	ug/L		01/21/19 07:56	01/23/19 01:18	1
Acenaphthene	ND		5.0	0.41	ug/L		01/21/19 07:56	01/23/19 01:18	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/21/19 07:56	01/23/19 01:18	1
Acetophenone	ND		5.0	0.54	ug/L		01/21/19 07:56	01/23/19 01:18	1
Anthracene	ND		5.0	0.28	ug/L		01/21/19 07:56	01/23/19 01:18	1
Atrazine	ND		5.0	0.46	ug/L		01/21/19 07:56	01/23/19 01:18	1
Benzaldehyde	ND		5.0	0.27	ug/L		01/21/19 07:56	01/23/19 01:18	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/21/19 07:56	01/23/19 01:18	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/21/19 07:56	01/23/19 01:18	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/21/19 07:56	01/23/19 01:18	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/21/19 07:56	01/23/19 01:18	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/21/19 07:56	01/23/19 01:18	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		01/21/19 07:56	01/23/19 01:18	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		01/21/19 07:56	01/23/19 01:18	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		01/21/19 07:56	01/23/19 01:18	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		01/21/19 07:56	01/23/19 01:18	1
Caprolactam	ND		5.0	2.2	ug/L		01/21/19 07:56	01/23/19 01:18	1
Carbazole	ND		5.0	0.30	ug/L		01/21/19 07:56	01/23/19 01:18	1
Chrysene	ND		5.0	0.33	ug/L		01/21/19 07:56	01/23/19 01:18	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: MW-4
Date Collected: 01/18/19 10:35
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-2
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/21/19 07:56	01/23/19 01:18	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		01/21/19 07:56	01/23/19 01:18	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		01/21/19 07:56	01/23/19 01:18	1
Dibenzofuran	ND		10	0.51	ug/L		01/21/19 07:56	01/23/19 01:18	1
Diethyl phthalate	ND		5.0	0.22	ug/L		01/21/19 07:56	01/23/19 01:18	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		01/21/19 07:56	01/23/19 01:18	1
Fluoranthene	ND		5.0	0.40	ug/L		01/21/19 07:56	01/23/19 01:18	1
Fluorene	ND		5.0	0.36	ug/L		01/21/19 07:56	01/23/19 01:18	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		01/21/19 07:56	01/23/19 01:18	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		01/21/19 07:56	01/23/19 01:18	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		01/21/19 07:56	01/23/19 01:18	1
Hexachloroethane	ND		5.0	0.59	ug/L		01/21/19 07:56	01/23/19 01:18	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/21/19 07:56	01/23/19 01:18	1
Isophorone	ND		5.0	0.43	ug/L		01/21/19 07:56	01/23/19 01:18	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		01/21/19 07:56	01/23/19 01:18	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		01/21/19 07:56	01/23/19 01:18	1
Naphthalene	ND		5.0	0.76	ug/L		01/21/19 07:56	01/23/19 01:18	1
Nitrobenzene	ND		5.0	0.29	ug/L		01/21/19 07:56	01/23/19 01:18	1
Pentachlorophenol	ND		10	2.2	ug/L		01/21/19 07:56	01/23/19 01:18	1
Phenanthrene	ND		5.0	0.44	ug/L		01/21/19 07:56	01/23/19 01:18	1
Phenol	ND		5.0	0.39	ug/L		01/21/19 07:56	01/23/19 01:18	1
Pyrene	ND		5.0	0.34	ug/L		01/21/19 07:56	01/23/19 01:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	77		46 - 120				01/21/19 07:56	01/23/19 01:18	1
Phenol-d5 (Surr)	49		22 - 120				01/21/19 07:56	01/23/19 01:18	1
p-Terphenyl-d14 (Surr)	101		59 - 136				01/21/19 07:56	01/23/19 01:18	1
2,4,6-Tribromophenol (Surr)	94		41 - 120				01/21/19 07:56	01/23/19 01:18	1
2-Fluorobiphenyl	86		48 - 120				01/21/19 07:56	01/23/19 01:18	1
2-Fluorophenol (Surr)	65		35 - 120				01/21/19 07:56	01/23/19 01:18	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13.9	F2 F1	0.20	0.060	mg/L		01/21/19 08:30	01/21/19 18:57	1
Antimony	ND		0.020	0.0068	mg/L		01/21/19 08:30	01/21/19 18:57	1
Arsenic	ND		0.015	0.0056	mg/L		01/21/19 08:30	01/21/19 18:57	1
Barium	3.4		0.0020	0.00070	mg/L		01/21/19 08:30	01/21/19 18:57	1
Beryllium	0.00049	J	0.0020	0.00030	mg/L		01/21/19 08:30	01/21/19 18:57	1
Cadmium	ND		0.0020	0.00050	mg/L		01/21/19 08:30	01/21/19 18:57	1
Calcium	290	F2	0.50	0.10	mg/L		01/21/19 08:30	01/21/19 18:57	1
Chromium	0.036	F2	0.0040	0.0010	mg/L		01/21/19 08:30	01/21/19 18:57	1
Cobalt	0.0060		0.0040	0.00063	mg/L		01/21/19 08:30	01/21/19 18:57	1
Copper	0.019		0.010	0.0016	mg/L		01/21/19 08:30	01/21/19 18:57	1
Iron	15.9	F2 F1 B	0.050	0.019	mg/L		01/21/19 08:30	01/21/19 18:57	1
Lead	0.017		0.010	0.0030	mg/L		01/21/19 08:30	01/21/19 18:57	1
Magnesium	164	F2	0.20	0.043	mg/L		01/21/19 08:30	01/21/19 18:57	1
Manganese	0.41	F2 F1	0.0030	0.00040	mg/L		01/21/19 08:30	01/21/19 18:57	1
Nickel	0.030		0.010	0.0013	mg/L		01/21/19 08:30	01/21/19 18:57	1
Potassium	13.7	F2 F1	0.50	0.10	mg/L		01/21/19 08:30	01/21/19 18:57	1
Selenium	ND		0.025	0.0087	mg/L		01/21/19 08:30	01/21/19 18:57	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: MW-4
Date Collected: 01/18/19 10:35
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-2
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0060	0.0017	mg/L		01/21/19 08:30	01/21/19 18:57	1
Sodium	292		1.0	0.32	mg/L		01/21/19 08:30	01/21/19 18:57	1
Thallium	ND		0.020	0.010	mg/L		01/21/19 08:30	01/21/19 18:57	1
Vanadium	0.026		0.0050	0.0015	mg/L		01/21/19 08:30	01/21/19 18:57	1
Zinc	0.032		0.010	0.0015	mg/L		01/21/19 08:30	01/21/19 18:57	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		01/25/19 10:15	01/25/19 15:14	1
Antimony	ND		0.020	0.0068	mg/L		01/25/19 10:15	01/25/19 15:14	1
Arsenic	ND		0.015	0.0056	mg/L		01/25/19 10:15	01/25/19 15:14	1
Barium	2.9		0.0020	0.00070	mg/L		01/25/19 10:15	01/25/19 15:14	1
Beryllium	ND		0.0020	0.00030	mg/L		01/25/19 10:15	01/25/19 15:14	1
Cadmium	ND		0.0020	0.00050	mg/L		01/25/19 10:15	01/25/19 15:14	1
Calcium	182		0.50	0.10	mg/L		01/25/19 10:15	01/25/19 15:14	1
Chromium	ND		0.0040	0.0010	mg/L		01/25/19 10:15	01/25/19 15:14	1
Cobalt	ND		0.0040	0.00063	mg/L		01/25/19 10:15	01/25/19 15:14	1
Copper	ND		0.010	0.0016	mg/L		01/25/19 10:15	01/25/19 15:14	1
Iron	ND		0.050	0.019	mg/L		01/25/19 10:15	01/25/19 15:14	1
Lead	ND		0.010	0.0030	mg/L		01/25/19 10:15	01/25/19 15:14	1
Magnesium	108		0.20	0.043	mg/L		01/25/19 10:15	01/25/19 15:14	1
Manganese	0.058		0.0030	0.00040	mg/L		01/25/19 10:15	01/25/19 15:14	1
Nickel	0.0060	J	0.010	0.0013	mg/L		01/25/19 10:15	01/25/19 15:14	1
Potassium	7.9		0.50	0.10	mg/L		01/25/19 10:15	01/25/19 15:14	1
Selenium	ND		0.025	0.0087	mg/L		01/25/19 10:15	01/25/19 15:14	1
Silver	ND		0.0060	0.0017	mg/L		01/25/19 10:15	01/25/19 15:14	1
Sodium	288		1.0	0.32	mg/L		01/25/19 10:15	01/25/19 15:14	1
Thallium	ND		0.020	0.010	mg/L		01/25/19 10:15	01/25/19 15:14	1
Vanadium	ND		0.0050	0.0015	mg/L		01/25/19 10:15	01/25/19 15:14	1
Zinc	ND		0.010	0.0015	mg/L		01/25/19 10:15	01/25/19 15:14	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		01/21/19 11:55	01/21/19 15:16	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		01/24/19 14:46	01/24/19 17:12	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: MW-2
Date Collected: 01/18/19 11:54
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-3
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			01/19/19 17:54	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			01/19/19 17:54	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			01/19/19 17:54	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			01/19/19 17:54	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			01/19/19 17:54	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			01/19/19 17:54	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			01/19/19 17:54	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			01/19/19 17:54	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			01/19/19 17:54	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			01/19/19 17:54	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			01/19/19 17:54	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			01/19/19 17:54	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			01/19/19 17:54	2
2-Butanone (MEK)	ND		20	2.6	ug/L			01/19/19 17:54	2
2-Hexanone	ND		10	2.5	ug/L			01/19/19 17:54	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			01/19/19 17:54	2
Acetone	ND		20	6.0	ug/L			01/19/19 17:54	2
Benzene	ND		2.0	0.82	ug/L			01/19/19 17:54	2
Bromodichloromethane	ND		2.0	0.78	ug/L			01/19/19 17:54	2
Bromoform	ND		2.0	0.52	ug/L			01/19/19 17:54	2
Bromomethane	ND		2.0	1.4	ug/L			01/19/19 17:54	2
Carbon disulfide	ND		2.0	0.38	ug/L			01/19/19 17:54	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			01/19/19 17:54	2
Chlorobenzene	ND		2.0	1.5	ug/L			01/19/19 17:54	2
Dibromochloromethane	ND		2.0	0.64	ug/L			01/19/19 17:54	2
Chloroethane	ND		2.0	0.64	ug/L			01/19/19 17:54	2
Chloroform	ND		2.0	0.68	ug/L			01/19/19 17:54	2
Chloromethane	ND		2.0	0.70	ug/L			01/19/19 17:54	2
cis-1,2-Dichloroethene	ND		2.0	1.6	ug/L			01/19/19 17:54	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			01/19/19 17:54	2
Cyclohexane	ND		2.0	0.36	ug/L			01/19/19 17:54	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			01/19/19 17:54	2
Ethylbenzene	ND		2.0	1.5	ug/L			01/19/19 17:54	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			01/19/19 17:54	2
Isopropylbenzene	ND		2.0	1.6	ug/L			01/19/19 17:54	2
Methyl acetate	ND		5.0	2.6	ug/L			01/19/19 17:54	2
Methyl tert-butyl ether	73		2.0	0.32	ug/L			01/19/19 17:54	2
Methylcyclohexane	ND		2.0	0.32	ug/L			01/19/19 17:54	2
Methylene Chloride	ND		2.0	0.88	ug/L			01/19/19 17:54	2
Styrene	ND		2.0	1.5	ug/L			01/19/19 17:54	2
Tetrachloroethene	ND		2.0	0.72	ug/L			01/19/19 17:54	2
Toluene	ND		2.0	1.0	ug/L			01/19/19 17:54	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			01/19/19 17:54	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			01/19/19 17:54	2
Trichloroethene	ND		2.0	0.92	ug/L			01/19/19 17:54	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			01/19/19 17:54	2
Vinyl chloride	ND		2.0	1.8	ug/L			01/19/19 17:54	2
Xylenes, Total	ND		4.0	1.3	ug/L			01/19/19 17:54	2

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: MW-2
Date Collected: 01/18/19 11:54
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-3
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		80 - 120		01/19/19 17:54	2
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		01/19/19 17:54	2
4-Bromofluorobenzene (Surr)	96		73 - 120		01/19/19 17:54	2
Dibromofluoromethane (Surr)	105		75 - 123		01/19/19 17:54	2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.2	0.68	ug/L		01/21/19 07:56	01/23/19 08:34	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		01/21/19 07:56	01/23/19 08:34	1
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		01/21/19 07:56	01/23/19 08:34	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		01/21/19 07:56	01/23/19 08:34	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		01/21/19 07:56	01/23/19 08:34	1
2,4-Dimethylphenol	ND		5.2	0.52	ug/L		01/21/19 07:56	01/23/19 08:34	1
2,4-Dinitrophenol	ND		10	2.3	ug/L		01/21/19 07:56	01/23/19 08:34	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		01/21/19 07:56	01/23/19 08:34	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 08:34	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		01/21/19 07:56	01/23/19 08:34	1
2-Chlorophenol	ND		5.2	0.55	ug/L		01/21/19 07:56	01/23/19 08:34	1
2-Methylphenol	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 08:34	1
2-Methylnaphthalene	ND		5.2	0.63	ug/L		01/21/19 07:56	01/23/19 08:34	1
2-Nitroaniline	ND		10	0.44	ug/L		01/21/19 07:56	01/23/19 08:34	1
2-Nitrophenol	ND		5.2	0.50	ug/L		01/21/19 07:56	01/23/19 08:34	1
3,3'-Dichlorobenzidine	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 08:34	1
3-Nitroaniline	ND		10	0.50	ug/L		01/21/19 07:56	01/23/19 08:34	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		01/21/19 07:56	01/23/19 08:34	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		01/21/19 07:56	01/23/19 08:34	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		01/21/19 07:56	01/23/19 08:34	1
4-Chloroaniline	ND		5.2	0.61	ug/L		01/21/19 07:56	01/23/19 08:34	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		01/21/19 07:56	01/23/19 08:34	1
4-Methylphenol	ND		10	0.38	ug/L		01/21/19 07:56	01/23/19 08:34	1
4-Nitroaniline	ND		10	0.26	ug/L		01/21/19 07:56	01/23/19 08:34	1
4-Nitrophenol	ND		10	1.6	ug/L		01/21/19 07:56	01/23/19 08:34	1
Acenaphthene	ND		5.2	0.43	ug/L		01/21/19 07:56	01/23/19 08:34	1
Acenaphthylene	ND		5.2	0.40	ug/L		01/21/19 07:56	01/23/19 08:34	1
Acetophenone	ND		5.2	0.56	ug/L		01/21/19 07:56	01/23/19 08:34	1
Anthracene	ND		5.2	0.29	ug/L		01/21/19 07:56	01/23/19 08:34	1
Atrazine	ND		5.2	0.48	ug/L		01/21/19 07:56	01/23/19 08:34	1
Benzaldehyde	ND		5.2	0.28	ug/L		01/21/19 07:56	01/23/19 08:34	1
Benzo[a]anthracene	ND		5.2	0.38	ug/L		01/21/19 07:56	01/23/19 08:34	1
Benzo[a]pyrene	ND		5.2	0.49	ug/L		01/21/19 07:56	01/23/19 08:34	1
Benzo[b]fluoranthene	ND		5.2	0.35	ug/L		01/21/19 07:56	01/23/19 08:34	1
Benzo[g,h,i]perylene	ND		5.2	0.36	ug/L		01/21/19 07:56	01/23/19 08:34	1
Benzo[k]fluoranthene	ND		5.2	0.76	ug/L		01/21/19 07:56	01/23/19 08:34	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		01/21/19 07:56	01/23/19 08:34	1
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 08:34	1
Bis(2-ethylhexyl) phthalate	ND		5.2	2.3	ug/L		01/21/19 07:56	01/23/19 08:34	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		01/21/19 07:56	01/23/19 08:34	1
Caprolactam	ND		5.2	2.3	ug/L		01/21/19 07:56	01/23/19 08:34	1
Carbazole	ND		5.2	0.31	ug/L		01/21/19 07:56	01/23/19 08:34	1
Chrysene	ND		5.2	0.34	ug/L		01/21/19 07:56	01/23/19 08:34	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: MW-2
Date Collected: 01/18/19 11:54
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		5.2	0.44	ug/L		01/21/19 07:56	01/23/19 08:34	1
Di-n-butyl phthalate	ND		5.2	0.32	ug/L		01/21/19 07:56	01/23/19 08:34	1
Di-n-octyl phthalate	ND		5.2	0.49	ug/L		01/21/19 07:56	01/23/19 08:34	1
Dibenzofuran	ND		10	0.53	ug/L		01/21/19 07:56	01/23/19 08:34	1
Diethyl phthalate	ND		5.2	0.23	ug/L		01/21/19 07:56	01/23/19 08:34	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		01/21/19 07:56	01/23/19 08:34	1
Fluoranthene	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 08:34	1
Fluorene	ND		5.2	0.38	ug/L		01/21/19 07:56	01/23/19 08:34	1
Hexachlorobenzene	ND		5.2	0.53	ug/L		01/21/19 07:56	01/23/19 08:34	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		01/21/19 07:56	01/23/19 08:34	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		01/21/19 07:56	01/23/19 08:34	1
Hexachloroethane	ND		5.2	0.61	ug/L		01/21/19 07:56	01/23/19 08:34	1
Indeno[1,2,3-cd]pyrene	ND		5.2	0.49	ug/L		01/21/19 07:56	01/23/19 08:34	1
Isophorone	ND		5.2	0.45	ug/L		01/21/19 07:56	01/23/19 08:34	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		01/21/19 07:56	01/23/19 08:34	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		01/21/19 07:56	01/23/19 08:34	1
Naphthalene	ND		5.2	0.79	ug/L		01/21/19 07:56	01/23/19 08:34	1
Nitrobenzene	ND		5.2	0.30	ug/L		01/21/19 07:56	01/23/19 08:34	1
Pentachlorophenol	ND		10	2.3	ug/L		01/21/19 07:56	01/23/19 08:34	1
Phenanthrene	ND		5.2	0.46	ug/L		01/21/19 07:56	01/23/19 08:34	1
Phenol	ND		5.2	0.41	ug/L		01/21/19 07:56	01/23/19 08:34	1
Pyrene	ND		5.2	0.35	ug/L		01/21/19 07:56	01/23/19 08:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	83		46 - 120				01/21/19 07:56	01/23/19 08:34	1
Phenol-d5 (Surr)	54		22 - 120				01/21/19 07:56	01/23/19 08:34	1
p-Terphenyl-d14 (Surr)	72		59 - 136				01/21/19 07:56	01/23/19 08:34	1
2,4,6-Tribromophenol (Surr)	95		41 - 120				01/21/19 07:56	01/23/19 08:34	1
2-Fluorobiphenyl	93		48 - 120				01/21/19 07:56	01/23/19 08:34	1
2-Fluorophenol (Surr)	68		35 - 120				01/21/19 07:56	01/23/19 08:34	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	65.2		0.20	0.060	mg/L		01/21/19 08:30	01/21/19 19:28	1
Antimony	ND		0.020	0.0068	mg/L		01/21/19 08:30	01/21/19 19:28	1
Arsenic	0.014	J	0.015	0.0056	mg/L		01/21/19 08:30	01/21/19 19:28	1
Barium	3.6		0.0020	0.00070	mg/L		01/21/19 08:30	01/21/19 19:28	1
Beryllium	0.0024		0.0020	0.00030	mg/L		01/21/19 08:30	01/21/19 19:28	1
Cadmium	0.0011	J	0.0020	0.00050	mg/L		01/21/19 08:30	01/21/19 19:28	1
Calcium	604		0.50	0.10	mg/L		01/21/19 08:30	01/21/19 19:28	1
Chromium	0.20		0.0040	0.0010	mg/L		01/21/19 08:30	01/21/19 19:28	1
Cobalt	0.044		0.0040	0.00063	mg/L		01/21/19 08:30	01/21/19 19:28	1
Copper	0.080		0.010	0.0016	mg/L		01/21/19 08:30	01/21/19 19:28	1
Iron	72.1	B	0.050	0.019	mg/L		01/21/19 08:30	01/21/19 19:28	1
Lead	0.054		0.020	0.0060	mg/L		01/21/19 08:30	01/22/19 12:46	2
Magnesium	331		0.20	0.043	mg/L		01/21/19 08:30	01/21/19 19:28	1
Manganese	1.8		0.0030	0.00040	mg/L		01/21/19 08:30	01/21/19 19:28	1
Nickel	0.19		0.010	0.0013	mg/L		01/21/19 08:30	01/21/19 19:28	1
Potassium	32.9		0.50	0.10	mg/L		01/21/19 08:30	01/21/19 19:28	1
Selenium	ND		0.025	0.0087	mg/L		01/21/19 08:30	01/21/19 19:28	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: MW-2
Date Collected: 01/18/19 11:54
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-3
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0060	0.0017	mg/L		01/21/19 08:30	01/21/19 19:28	1
Sodium	371		1.0	0.32	mg/L		01/21/19 08:30	01/21/19 19:28	1
Thallium	ND		0.020	0.010	mg/L		01/21/19 08:30	01/21/19 19:28	1
Vanadium	0.12		0.0050	0.0015	mg/L		01/21/19 08:30	01/21/19 19:28	1
Zinc	0.15		0.010	0.0015	mg/L		01/21/19 08:30	01/21/19 19:28	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		01/25/19 10:15	01/25/19 15:45	1
Antimony	ND		0.020	0.0068	mg/L		01/25/19 10:15	01/25/19 15:45	1
Arsenic	ND	^	0.015	0.0056	mg/L		01/25/19 10:15	01/25/19 15:45	1
Barium	0.97		0.0020	0.00070	mg/L		01/25/19 10:15	01/25/19 15:45	1
Beryllium	ND		0.0020	0.00030	mg/L		01/25/19 10:15	01/25/19 15:45	1
Cadmium	ND		0.0020	0.00050	mg/L		01/25/19 10:15	01/25/19 15:45	1
Calcium	205		0.50	0.10	mg/L		01/25/19 10:15	01/25/19 15:45	1
Chromium	ND		0.0040	0.0010	mg/L		01/25/19 10:15	01/25/19 15:45	1
Cobalt	0.0034	J	0.0040	0.00063	mg/L		01/25/19 10:15	01/25/19 15:45	1
Copper	ND		0.010	0.0016	mg/L		01/25/19 10:15	01/25/19 15:45	1
Iron	ND		0.050	0.019	mg/L		01/25/19 10:15	01/25/19 15:45	1
Lead	0.0035	J	0.010	0.0030	mg/L		01/25/19 10:15	01/25/19 15:45	1
Magnesium	105		0.20	0.043	mg/L		01/25/19 10:15	01/25/19 15:45	1
Manganese	0.25		0.0030	0.00040	mg/L		01/25/19 10:15	01/25/19 15:45	1
Nickel	0.022		0.010	0.0013	mg/L		01/25/19 10:15	01/25/19 15:45	1
Potassium	9.1		0.50	0.10	mg/L		01/25/19 10:15	01/25/19 15:45	1
Selenium	ND		0.025	0.0087	mg/L		01/25/19 10:15	01/25/19 15:45	1
Silver	ND		0.0060	0.0017	mg/L		01/25/19 10:15	01/25/19 15:45	1
Sodium	386		1.0	0.32	mg/L		01/25/19 10:15	01/25/19 15:45	1
Thallium	ND		0.020	0.010	mg/L		01/25/19 10:15	01/25/19 15:45	1
Vanadium	ND		0.0050	0.0015	mg/L		01/25/19 10:15	01/25/19 15:45	1
Zinc	0.0065	J B	0.010	0.0015	mg/L		01/25/19 10:15	01/25/19 15:45	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00015	J	0.00020	0.00012	mg/L		01/21/19 11:55	01/21/19 15:24	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		01/24/19 14:46	01/24/19 17:13	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: DUPE
Date Collected: 01/18/19 12:10
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-4
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.0	1.6	ug/L			01/19/19 18:17	2
1,1,2,2-Tetrachloroethane	ND		2.0	0.42	ug/L			01/19/19 18:17	2
1,1,2-Trichloroethane	ND		2.0	0.46	ug/L			01/19/19 18:17	2
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		2.0	0.62	ug/L			01/19/19 18:17	2
1,1-Dichloroethane	ND		2.0	0.76	ug/L			01/19/19 18:17	2
1,1-Dichloroethene	ND		2.0	0.58	ug/L			01/19/19 18:17	2
1,2,4-Trichlorobenzene	ND		2.0	0.82	ug/L			01/19/19 18:17	2
1,2-Dibromo-3-Chloropropane	ND		2.0	0.78	ug/L			01/19/19 18:17	2
1,2-Dichlorobenzene	ND		2.0	1.6	ug/L			01/19/19 18:17	2
1,2-Dichloroethane	ND		2.0	0.42	ug/L			01/19/19 18:17	2
1,2-Dichloropropane	ND		2.0	1.4	ug/L			01/19/19 18:17	2
1,3-Dichlorobenzene	ND		2.0	1.6	ug/L			01/19/19 18:17	2
1,4-Dichlorobenzene	ND		2.0	1.7	ug/L			01/19/19 18:17	2
2-Butanone (MEK)	ND		20	2.6	ug/L			01/19/19 18:17	2
2-Hexanone	ND		10	2.5	ug/L			01/19/19 18:17	2
4-Methyl-2-pentanone (MIBK)	ND		10	4.2	ug/L			01/19/19 18:17	2
Acetone	6.2	J	20	6.0	ug/L			01/19/19 18:17	2
Benzene	ND		2.0	0.82	ug/L			01/19/19 18:17	2
Bromodichloromethane	ND		2.0	0.78	ug/L			01/19/19 18:17	2
Bromoform	ND		2.0	0.52	ug/L			01/19/19 18:17	2
Bromomethane	ND		2.0	1.4	ug/L			01/19/19 18:17	2
Carbon disulfide	ND		2.0	0.38	ug/L			01/19/19 18:17	2
Carbon tetrachloride	ND		2.0	0.54	ug/L			01/19/19 18:17	2
Chlorobenzene	ND		2.0	1.5	ug/L			01/19/19 18:17	2
Dibromochloromethane	ND		2.0	0.64	ug/L			01/19/19 18:17	2
Chloroethane	ND		2.0	0.64	ug/L			01/19/19 18:17	2
Chloroform	ND		2.0	0.68	ug/L			01/19/19 18:17	2
Chloromethane	ND		2.0	0.70	ug/L			01/19/19 18:17	2
cis-1,2-Dichloroethene	ND		2.0	1.6	ug/L			01/19/19 18:17	2
cis-1,3-Dichloropropene	ND		2.0	0.72	ug/L			01/19/19 18:17	2
Cyclohexane	ND		2.0	0.36	ug/L			01/19/19 18:17	2
Dichlorodifluoromethane	ND		2.0	1.4	ug/L			01/19/19 18:17	2
Ethylbenzene	ND		2.0	1.5	ug/L			01/19/19 18:17	2
1,2-Dibromoethane	ND		2.0	1.5	ug/L			01/19/19 18:17	2
Isopropylbenzene	ND		2.0	1.6	ug/L			01/19/19 18:17	2
Methyl acetate	ND		5.0	2.6	ug/L			01/19/19 18:17	2
Methyl tert-butyl ether	71		2.0	0.32	ug/L			01/19/19 18:17	2
Methylcyclohexane	ND		2.0	0.32	ug/L			01/19/19 18:17	2
Methylene Chloride	ND		2.0	0.88	ug/L			01/19/19 18:17	2
Styrene	ND		2.0	1.5	ug/L			01/19/19 18:17	2
Tetrachloroethene	ND		2.0	0.72	ug/L			01/19/19 18:17	2
Toluene	ND		2.0	1.0	ug/L			01/19/19 18:17	2
trans-1,2-Dichloroethene	ND		2.0	1.8	ug/L			01/19/19 18:17	2
trans-1,3-Dichloropropene	ND		2.0	0.74	ug/L			01/19/19 18:17	2
Trichloroethene	ND		2.0	0.92	ug/L			01/19/19 18:17	2
Trichlorofluoromethane	ND		2.0	1.8	ug/L			01/19/19 18:17	2
Vinyl chloride	ND		2.0	1.8	ug/L			01/19/19 18:17	2
Xylenes, Total	ND		4.0	1.3	ug/L			01/19/19 18:17	2

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: DUPE
Date Collected: 01/18/19 12:10
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-4
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	105		80 - 120		01/19/19 18:17	2
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		01/19/19 18:17	2
4-Bromofluorobenzene (Surr)	101		73 - 120		01/19/19 18:17	2
Dibromofluoromethane (Surr)	101		75 - 123		01/19/19 18:17	2

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.2	0.68	ug/L		01/21/19 07:56	01/23/19 09:03	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		01/21/19 07:56	01/23/19 09:03	1
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		01/21/19 07:56	01/23/19 09:03	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		01/21/19 07:56	01/23/19 09:03	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		01/21/19 07:56	01/23/19 09:03	1
2,4-Dimethylphenol	ND		5.2	0.52	ug/L		01/21/19 07:56	01/23/19 09:03	1
2,4-Dinitrophenol	ND		10	2.3	ug/L		01/21/19 07:56	01/23/19 09:03	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		01/21/19 07:56	01/23/19 09:03	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 09:03	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		01/21/19 07:56	01/23/19 09:03	1
2-Chlorophenol	ND		5.2	0.55	ug/L		01/21/19 07:56	01/23/19 09:03	1
2-Methylphenol	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 09:03	1
2-Methylnaphthalene	ND		5.2	0.63	ug/L		01/21/19 07:56	01/23/19 09:03	1
2-Nitroaniline	ND		10	0.44	ug/L		01/21/19 07:56	01/23/19 09:03	1
2-Nitrophenol	ND		5.2	0.50	ug/L		01/21/19 07:56	01/23/19 09:03	1
3,3'-Dichlorobenzidine	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 09:03	1
3-Nitroaniline	ND		10	0.50	ug/L		01/21/19 07:56	01/23/19 09:03	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		01/21/19 07:56	01/23/19 09:03	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		01/21/19 07:56	01/23/19 09:03	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		01/21/19 07:56	01/23/19 09:03	1
4-Chloroaniline	ND		5.2	0.61	ug/L		01/21/19 07:56	01/23/19 09:03	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		01/21/19 07:56	01/23/19 09:03	1
4-Methylphenol	ND		10	0.38	ug/L		01/21/19 07:56	01/23/19 09:03	1
4-Nitroaniline	ND		10	0.26	ug/L		01/21/19 07:56	01/23/19 09:03	1
4-Nitrophenol	ND		10	1.6	ug/L		01/21/19 07:56	01/23/19 09:03	1
Acenaphthene	ND		5.2	0.43	ug/L		01/21/19 07:56	01/23/19 09:03	1
Acenaphthylene	ND		5.2	0.40	ug/L		01/21/19 07:56	01/23/19 09:03	1
Acetophenone	ND		5.2	0.56	ug/L		01/21/19 07:56	01/23/19 09:03	1
Anthracene	ND		5.2	0.29	ug/L		01/21/19 07:56	01/23/19 09:03	1
Atrazine	ND		5.2	0.48	ug/L		01/21/19 07:56	01/23/19 09:03	1
Benzaldehyde	ND		5.2	0.28	ug/L		01/21/19 07:56	01/23/19 09:03	1
Benzo[a]anthracene	ND		5.2	0.38	ug/L		01/21/19 07:56	01/23/19 09:03	1
Benzo[a]pyrene	ND		5.2	0.49	ug/L		01/21/19 07:56	01/23/19 09:03	1
Benzo[b]fluoranthene	ND		5.2	0.35	ug/L		01/21/19 07:56	01/23/19 09:03	1
Benzo[g,h,i]perylene	ND		5.2	0.36	ug/L		01/21/19 07:56	01/23/19 09:03	1
Benzo[k]fluoranthene	ND		5.2	0.76	ug/L		01/21/19 07:56	01/23/19 09:03	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		01/21/19 07:56	01/23/19 09:03	1
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 09:03	1
Bis(2-ethylhexyl) phthalate	ND		5.2	2.3	ug/L		01/21/19 07:56	01/23/19 09:03	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		01/21/19 07:56	01/23/19 09:03	1
Caprolactam	ND		5.2	2.3	ug/L		01/21/19 07:56	01/23/19 09:03	1
Carbazole	ND		5.2	0.31	ug/L		01/21/19 07:56	01/23/19 09:03	1
Chrysene	ND		5.2	0.34	ug/L		01/21/19 07:56	01/23/19 09:03	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: DUPE
Date Collected: 01/18/19 12:10
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		5.2	0.44	ug/L		01/21/19 07:56	01/23/19 09:03	1
Di-n-butyl phthalate	ND		5.2	0.32	ug/L		01/21/19 07:56	01/23/19 09:03	1
Di-n-octyl phthalate	ND		5.2	0.49	ug/L		01/21/19 07:56	01/23/19 09:03	1
Dibenzofuran	ND		10	0.53	ug/L		01/21/19 07:56	01/23/19 09:03	1
Diethyl phthalate	ND		5.2	0.23	ug/L		01/21/19 07:56	01/23/19 09:03	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		01/21/19 07:56	01/23/19 09:03	1
Fluoranthene	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 09:03	1
Fluorene	ND		5.2	0.38	ug/L		01/21/19 07:56	01/23/19 09:03	1
Hexachlorobenzene	ND		5.2	0.53	ug/L		01/21/19 07:56	01/23/19 09:03	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		01/21/19 07:56	01/23/19 09:03	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		01/21/19 07:56	01/23/19 09:03	1
Hexachloroethane	ND		5.2	0.61	ug/L		01/21/19 07:56	01/23/19 09:03	1
Indeno[1,2,3-cd]pyrene	ND		5.2	0.49	ug/L		01/21/19 07:56	01/23/19 09:03	1
Isophorone	ND		5.2	0.45	ug/L		01/21/19 07:56	01/23/19 09:03	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		01/21/19 07:56	01/23/19 09:03	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		01/21/19 07:56	01/23/19 09:03	1
Naphthalene	ND		5.2	0.79	ug/L		01/21/19 07:56	01/23/19 09:03	1
Nitrobenzene	ND		5.2	0.30	ug/L		01/21/19 07:56	01/23/19 09:03	1
Pentachlorophenol	ND		10	2.3	ug/L		01/21/19 07:56	01/23/19 09:03	1
Phenanthrene	ND		5.2	0.46	ug/L		01/21/19 07:56	01/23/19 09:03	1
Phenol	ND		5.2	0.41	ug/L		01/21/19 07:56	01/23/19 09:03	1
Pyrene	ND		5.2	0.35	ug/L		01/21/19 07:56	01/23/19 09:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	90		46 - 120				01/21/19 07:56	01/23/19 09:03	1
Phenol-d5 (Surr)	53		22 - 120				01/21/19 07:56	01/23/19 09:03	1
p-Terphenyl-d14 (Surr)	85		59 - 136				01/21/19 07:56	01/23/19 09:03	1
2,4,6-Tribromophenol (Surr)	101		41 - 120				01/21/19 07:56	01/23/19 09:03	1
2-Fluorobiphenyl	100		48 - 120				01/21/19 07:56	01/23/19 09:03	1
2-Fluorophenol (Surr)	69		35 - 120				01/21/19 07:56	01/23/19 09:03	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	61.5		0.20	0.060	mg/L		01/21/19 08:30	01/21/19 19:32	1
Antimony	ND		0.020	0.0068	mg/L		01/21/19 08:30	01/21/19 19:32	1
Arsenic	0.015		0.015	0.0056	mg/L		01/21/19 08:30	01/21/19 19:32	1
Barium	3.6		0.0020	0.00070	mg/L		01/21/19 08:30	01/21/19 19:32	1
Beryllium	0.0022		0.0020	0.00030	mg/L		01/21/19 08:30	01/21/19 19:32	1
Cadmium	0.00098	J	0.0020	0.00050	mg/L		01/21/19 08:30	01/21/19 19:32	1
Calcium	616		0.50	0.10	mg/L		01/21/19 08:30	01/21/19 19:32	1
Chromium	0.19		0.0040	0.0010	mg/L		01/21/19 08:30	01/21/19 19:32	1
Cobalt	0.042		0.0040	0.00063	mg/L		01/21/19 08:30	01/21/19 19:32	1
Copper	0.073		0.010	0.0016	mg/L		01/21/19 08:30	01/21/19 19:32	1
Iron	69.8	B	0.050	0.019	mg/L		01/21/19 08:30	01/21/19 19:32	1
Lead	0.048		0.020	0.0060	mg/L		01/21/19 08:30	01/22/19 12:50	2
Magnesium	334		0.20	0.043	mg/L		01/21/19 08:30	01/21/19 19:32	1
Manganese	1.8		0.0030	0.00040	mg/L		01/21/19 08:30	01/21/19 19:32	1
Nickel	0.19		0.010	0.0013	mg/L		01/21/19 08:30	01/21/19 19:32	1
Potassium	30.9		0.50	0.10	mg/L		01/21/19 08:30	01/21/19 19:32	1
Selenium	ND		0.025	0.0087	mg/L		01/21/19 08:30	01/21/19 19:32	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
 Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
 SDG: 119.412.009

Client Sample ID: DUPE
Date Collected: 01/18/19 12:10
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-4
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0060	0.0017	mg/L		01/21/19 08:30	01/21/19 19:32	1
Sodium	371		1.0	0.32	mg/L		01/21/19 08:30	01/21/19 19:32	1
Thallium	ND		0.020	0.010	mg/L		01/21/19 08:30	01/21/19 19:32	1
Vanadium	0.11		0.0050	0.0015	mg/L		01/21/19 08:30	01/21/19 19:32	1
Zinc	0.14		0.010	0.0015	mg/L		01/21/19 08:30	01/21/19 19:32	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00017	J	0.00020	0.00012	mg/L		01/21/19 11:55	01/21/19 15:25	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-2
Date Collected: 01/18/19 12:55
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-5
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/19/19 18:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/19/19 18:40	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/19/19 18:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/19/19 18:40	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/19/19 18:40	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/19/19 18:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/19/19 18:40	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/19/19 18:40	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/19/19 18:40	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/19/19 18:40	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/19/19 18:40	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/19/19 18:40	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/19/19 18:40	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/19/19 18:40	1
2-Hexanone	ND		5.0	1.2	ug/L			01/19/19 18:40	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/19/19 18:40	1
Acetone	3.2	J	10	3.0	ug/L			01/19/19 18:40	1
Benzene	ND		1.0	0.41	ug/L			01/19/19 18:40	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/19/19 18:40	1
Bromoform	ND		1.0	0.26	ug/L			01/19/19 18:40	1
Bromomethane	ND		1.0	0.69	ug/L			01/19/19 18:40	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/19/19 18:40	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/19/19 18:40	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/19/19 18:40	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/19/19 18:40	1
Chloroethane	ND		1.0	0.32	ug/L			01/19/19 18:40	1
Chloroform	ND		1.0	0.34	ug/L			01/19/19 18:40	1
Chloromethane	ND		1.0	0.35	ug/L			01/19/19 18:40	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/19/19 18:40	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/19/19 18:40	1
Cyclohexane	ND		1.0	0.18	ug/L			01/19/19 18:40	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/19/19 18:40	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/19/19 18:40	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/19/19 18:40	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/19/19 18:40	1
Methyl acetate	ND		2.5	1.3	ug/L			01/19/19 18:40	1
Methyl tert-butyl ether	14		1.0	0.16	ug/L			01/19/19 18:40	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/19/19 18:40	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/19/19 18:40	1
Styrene	ND		1.0	0.73	ug/L			01/19/19 18:40	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/19/19 18:40	1
Toluene	ND		1.0	0.51	ug/L			01/19/19 18:40	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/19/19 18:40	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/19/19 18:40	1
Trichloroethene	ND		1.0	0.46	ug/L			01/19/19 18:40	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/19/19 18:40	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/19/19 18:40	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/19/19 18:40	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-2
Date Collected: 01/18/19 12:55
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-5
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	103		80 - 120		01/19/19 18:40	1
1,2-Dichloroethane-d4 (Surr)	110		77 - 120		01/19/19 18:40	1
4-Bromofluorobenzene (Surr)	99		73 - 120		01/19/19 18:40	1
Dibromofluoromethane (Surr)	106		75 - 123		01/19/19 18:40	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.2	0.68	ug/L		01/21/19 07:56	01/23/19 09:33	1
bis (2-chloroisopropyl) ether	ND		5.2	0.54	ug/L		01/21/19 07:56	01/23/19 09:33	1
2,4,5-Trichlorophenol	ND		5.2	0.50	ug/L		01/21/19 07:56	01/23/19 09:33	1
2,4,6-Trichlorophenol	ND		5.2	0.64	ug/L		01/21/19 07:56	01/23/19 09:33	1
2,4-Dichlorophenol	ND		5.2	0.53	ug/L		01/21/19 07:56	01/23/19 09:33	1
2,4-Dimethylphenol	ND		5.2	0.52	ug/L		01/21/19 07:56	01/23/19 09:33	1
2,4-Dinitrophenol	ND		10	2.3	ug/L		01/21/19 07:56	01/23/19 09:33	1
2,4-Dinitrotoluene	ND		5.2	0.47	ug/L		01/21/19 07:56	01/23/19 09:33	1
2,6-Dinitrotoluene	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 09:33	1
2-Chloronaphthalene	ND		5.2	0.48	ug/L		01/21/19 07:56	01/23/19 09:33	1
2-Chlorophenol	ND		5.2	0.55	ug/L		01/21/19 07:56	01/23/19 09:33	1
2-Methylphenol	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 09:33	1
2-Methylnaphthalene	ND		5.2	0.63	ug/L		01/21/19 07:56	01/23/19 09:33	1
2-Nitroaniline	ND		10	0.44	ug/L		01/21/19 07:56	01/23/19 09:33	1
2-Nitrophenol	ND		5.2	0.50	ug/L		01/21/19 07:56	01/23/19 09:33	1
3,3'-Dichlorobenzidine	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 09:33	1
3-Nitroaniline	ND		10	0.50	ug/L		01/21/19 07:56	01/23/19 09:33	1
4,6-Dinitro-2-methylphenol	ND		10	2.3	ug/L		01/21/19 07:56	01/23/19 09:33	1
4-Bromophenyl phenyl ether	ND		5.2	0.47	ug/L		01/21/19 07:56	01/23/19 09:33	1
4-Chloro-3-methylphenol	ND		5.2	0.47	ug/L		01/21/19 07:56	01/23/19 09:33	1
4-Chloroaniline	ND		5.2	0.61	ug/L		01/21/19 07:56	01/23/19 09:33	1
4-Chlorophenyl phenyl ether	ND		5.2	0.36	ug/L		01/21/19 07:56	01/23/19 09:33	1
4-Methylphenol	ND		10	0.38	ug/L		01/21/19 07:56	01/23/19 09:33	1
4-Nitroaniline	ND		10	0.26	ug/L		01/21/19 07:56	01/23/19 09:33	1
4-Nitrophenol	ND		10	1.6	ug/L		01/21/19 07:56	01/23/19 09:33	1
Acenaphthene	ND		5.2	0.43	ug/L		01/21/19 07:56	01/23/19 09:33	1
Acenaphthylene	ND		5.2	0.40	ug/L		01/21/19 07:56	01/23/19 09:33	1
Acetophenone	ND		5.2	0.56	ug/L		01/21/19 07:56	01/23/19 09:33	1
Anthracene	ND		5.2	0.29	ug/L		01/21/19 07:56	01/23/19 09:33	1
Atrazine	ND		5.2	0.48	ug/L		01/21/19 07:56	01/23/19 09:33	1
Benzaldehyde	ND		5.2	0.28	ug/L		01/21/19 07:56	01/23/19 09:33	1
Benzo[a]anthracene	ND		5.2	0.38	ug/L		01/21/19 07:56	01/23/19 09:33	1
Benzo[a]pyrene	ND		5.2	0.49	ug/L		01/21/19 07:56	01/23/19 09:33	1
Benzo[b]fluoranthene	ND		5.2	0.35	ug/L		01/21/19 07:56	01/23/19 09:33	1
Benzo[g,h,i]perylene	ND		5.2	0.36	ug/L		01/21/19 07:56	01/23/19 09:33	1
Benzo[k]fluoranthene	ND		5.2	0.76	ug/L		01/21/19 07:56	01/23/19 09:33	1
Bis(2-chloroethoxy)methane	ND		5.2	0.36	ug/L		01/21/19 07:56	01/23/19 09:33	1
Bis(2-chloroethyl)ether	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 09:33	1
Bis(2-ethylhexyl) phthalate	ND		5.2	2.3	ug/L		01/21/19 07:56	01/23/19 09:33	1
Butyl benzyl phthalate	ND		5.2	1.0	ug/L		01/21/19 07:56	01/23/19 09:33	1
Caprolactam	ND		5.2	2.3	ug/L		01/21/19 07:56	01/23/19 09:33	1
Carbazole	ND		5.2	0.31	ug/L		01/21/19 07:56	01/23/19 09:33	1
Chrysene	ND		5.2	0.34	ug/L		01/21/19 07:56	01/23/19 09:33	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-2
Date Collected: 01/18/19 12:55
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		5.2	0.44	ug/L		01/21/19 07:56	01/23/19 09:33	1
Di-n-butyl phthalate	ND		5.2	0.32	ug/L		01/21/19 07:56	01/23/19 09:33	1
Di-n-octyl phthalate	ND		5.2	0.49	ug/L		01/21/19 07:56	01/23/19 09:33	1
Dibenzofuran	ND		10	0.53	ug/L		01/21/19 07:56	01/23/19 09:33	1
Diethyl phthalate	ND		5.2	0.23	ug/L		01/21/19 07:56	01/23/19 09:33	1
Dimethyl phthalate	ND		5.2	0.38	ug/L		01/21/19 07:56	01/23/19 09:33	1
Fluoranthene	ND		5.2	0.42	ug/L		01/21/19 07:56	01/23/19 09:33	1
Fluorene	ND		5.2	0.38	ug/L		01/21/19 07:56	01/23/19 09:33	1
Hexachlorobenzene	ND		5.2	0.53	ug/L		01/21/19 07:56	01/23/19 09:33	1
Hexachlorobutadiene	ND		5.2	0.71	ug/L		01/21/19 07:56	01/23/19 09:33	1
Hexachlorocyclopentadiene	ND		5.2	0.61	ug/L		01/21/19 07:56	01/23/19 09:33	1
Hexachloroethane	ND		5.2	0.61	ug/L		01/21/19 07:56	01/23/19 09:33	1
Indeno[1,2,3-cd]pyrene	ND		5.2	0.49	ug/L		01/21/19 07:56	01/23/19 09:33	1
Isophorone	ND		5.2	0.45	ug/L		01/21/19 07:56	01/23/19 09:33	1
N-Nitrosodi-n-propylamine	ND		5.2	0.56	ug/L		01/21/19 07:56	01/23/19 09:33	1
N-Nitrosodiphenylamine	ND		5.2	0.53	ug/L		01/21/19 07:56	01/23/19 09:33	1
Naphthalene	ND		5.2	0.79	ug/L		01/21/19 07:56	01/23/19 09:33	1
Nitrobenzene	ND		5.2	0.30	ug/L		01/21/19 07:56	01/23/19 09:33	1
Pentachlorophenol	ND		10	2.3	ug/L		01/21/19 07:56	01/23/19 09:33	1
Phenanthrene	ND		5.2	0.46	ug/L		01/21/19 07:56	01/23/19 09:33	1
Phenol	ND		5.2	0.41	ug/L		01/21/19 07:56	01/23/19 09:33	1
Pyrene	ND		5.2	0.35	ug/L		01/21/19 07:56	01/23/19 09:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	93		46 - 120				01/21/19 07:56	01/23/19 09:33	1
Phenol-d5 (Surr)	60		22 - 120				01/21/19 07:56	01/23/19 09:33	1
p-Terphenyl-d14 (Surr)	99		59 - 136				01/21/19 07:56	01/23/19 09:33	1
2,4,6-Tribromophenol (Surr)	106		41 - 120				01/21/19 07:56	01/23/19 09:33	1
2-Fluorobiphenyl	103		48 - 120				01/21/19 07:56	01/23/19 09:33	1
2-Fluorophenol (Surr)	78		35 - 120				01/21/19 07:56	01/23/19 09:33	1

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	223		0.20	0.060	mg/L		01/21/19 08:30	01/21/19 19:36	1
Antimony	0.0095	J	0.020	0.0068	mg/L		01/21/19 08:30	01/21/19 19:36	1
Arsenic	0.071		0.015	0.0056	mg/L		01/21/19 08:30	01/21/19 19:36	1
Barium	2.8		0.0020	0.00070	mg/L		01/21/19 08:30	01/21/19 19:36	1
Beryllium	0.0084		0.0020	0.00030	mg/L		01/21/19 08:30	01/21/19 19:36	1
Cadmium	0.0026		0.0020	0.00050	mg/L		01/21/19 08:30	01/21/19 19:36	1
Calcium	2280		2.5	0.50	mg/L		01/21/19 08:30	01/21/19 19:40	5
Chromium	0.37		0.0040	0.0010	mg/L		01/21/19 08:30	01/21/19 19:36	1
Cobalt	0.16		0.0040	0.00063	mg/L		01/21/19 08:30	01/21/19 19:36	1
Copper	0.38		0.050	0.0080	mg/L		01/21/19 08:30	01/21/19 19:40	5
Iron	265	B	0.050	0.019	mg/L		01/21/19 08:30	01/21/19 19:36	1
Lead	0.18		0.050	0.015	mg/L		01/21/19 08:30	01/21/19 19:40	5
Magnesium	1240		1.0	0.22	mg/L		01/21/19 08:30	01/21/19 19:40	5
Manganese	5.7		0.0030	0.00040	mg/L		01/21/19 08:30	01/21/19 19:36	1
Nickel	0.73		0.010	0.0013	mg/L		01/21/19 08:30	01/21/19 19:36	1
Potassium	90.2		0.50	0.10	mg/L		01/21/19 08:30	01/21/19 19:36	1
Selenium	ND		0.025	0.0087	mg/L		01/21/19 08:30	01/21/19 19:36	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-2
Date Collected: 01/18/19 12:55
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-5
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0060	0.0017	mg/L		01/21/19 08:30	01/21/19 19:36	1
Sodium	190		1.0	0.32	mg/L		01/21/19 08:30	01/21/19 19:36	1
Thallium	ND		0.020	0.010	mg/L		01/21/19 08:30	01/21/19 19:36	1
Vanadium	0.35		0.0050	0.0015	mg/L		01/21/19 08:30	01/21/19 19:36	1
Zinc	0.56		0.010	0.0015	mg/L		01/21/19 08:30	01/21/19 19:36	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		01/25/19 10:15	01/25/19 15:49	1
Antimony	ND		0.020	0.0068	mg/L		01/25/19 10:15	01/25/19 15:49	1
Arsenic	ND	^	0.015	0.0056	mg/L		01/25/19 10:15	01/25/19 15:49	1
Barium	0.84		0.0020	0.00070	mg/L		01/25/19 10:15	01/25/19 15:49	1
Beryllium	ND		0.0020	0.00030	mg/L		01/25/19 10:15	01/25/19 15:49	1
Cadmium	ND		0.0020	0.00050	mg/L		01/25/19 10:15	01/25/19 15:49	1
Calcium	174		0.50	0.10	mg/L		01/25/19 10:15	01/25/19 15:49	1
Chromium	ND		0.0040	0.0010	mg/L		01/25/19 10:15	01/25/19 15:49	1
Cobalt	0.0032	J	0.0040	0.00063	mg/L		01/25/19 10:15	01/25/19 15:49	1
Copper	ND		0.010	0.0016	mg/L		01/25/19 10:15	01/25/19 15:49	1
Iron	ND		0.050	0.019	mg/L		01/25/19 10:15	01/25/19 15:49	1
Lead	0.0030	J	0.010	0.0030	mg/L		01/25/19 10:15	01/25/19 15:49	1
Magnesium	92.6		0.20	0.043	mg/L		01/25/19 10:15	01/25/19 15:49	1
Manganese	0.15		0.0030	0.00040	mg/L		01/25/19 10:15	01/25/19 15:49	1
Nickel	0.020		0.010	0.0013	mg/L		01/25/19 10:15	01/25/19 15:49	1
Potassium	8.3		0.50	0.10	mg/L		01/25/19 10:15	01/25/19 15:49	1
Selenium	ND		0.025	0.0087	mg/L		01/25/19 10:15	01/25/19 15:49	1
Silver	ND		0.0060	0.0017	mg/L		01/25/19 10:15	01/25/19 15:49	1
Sodium	224		1.0	0.32	mg/L		01/25/19 10:15	01/25/19 15:49	1
Thallium	ND		0.020	0.010	mg/L		01/25/19 10:15	01/25/19 15:49	1
Vanadium	ND		0.0050	0.0015	mg/L		01/25/19 10:15	01/25/19 15:49	1
Zinc	0.0028	J B	0.010	0.0015	mg/L		01/25/19 10:15	01/25/19 15:49	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00078		0.00020	0.00012	mg/L		01/21/19 11:55	01/21/19 15:27	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		01/24/19 14:46	01/24/19 17:14	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-3
Date Collected: 01/18/19 13:40
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-6
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/19/19 19:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/19/19 19:03	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/19/19 19:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/19/19 19:03	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/19/19 19:03	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/19/19 19:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/19/19 19:03	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/19/19 19:03	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/19/19 19:03	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/19/19 19:03	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/19/19 19:03	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/19/19 19:03	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/19/19 19:03	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/19/19 19:03	1
2-Hexanone	ND		5.0	1.2	ug/L			01/19/19 19:03	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/19/19 19:03	1
Acetone	3.5	J	10	3.0	ug/L			01/19/19 19:03	1
Benzene	ND		1.0	0.41	ug/L			01/19/19 19:03	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/19/19 19:03	1
Bromoform	ND		1.0	0.26	ug/L			01/19/19 19:03	1
Bromomethane	ND		1.0	0.69	ug/L			01/19/19 19:03	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/19/19 19:03	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/19/19 19:03	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/19/19 19:03	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/19/19 19:03	1
Chloroethane	ND		1.0	0.32	ug/L			01/19/19 19:03	1
Chloroform	ND		1.0	0.34	ug/L			01/19/19 19:03	1
Chloromethane	ND		1.0	0.35	ug/L			01/19/19 19:03	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/19/19 19:03	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/19/19 19:03	1
Cyclohexane	0.72	J	1.0	0.18	ug/L			01/19/19 19:03	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/19/19 19:03	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/19/19 19:03	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/19/19 19:03	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/19/19 19:03	1
Methyl acetate	ND		2.5	1.3	ug/L			01/19/19 19:03	1
Methyl tert-butyl ether	0.70	J	1.0	0.16	ug/L			01/19/19 19:03	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/19/19 19:03	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/19/19 19:03	1
Styrene	ND		1.0	0.73	ug/L			01/19/19 19:03	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/19/19 19:03	1
Toluene	ND		1.0	0.51	ug/L			01/19/19 19:03	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/19/19 19:03	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/19/19 19:03	1
Trichloroethene	ND		1.0	0.46	ug/L			01/19/19 19:03	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/19/19 19:03	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/19/19 19:03	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/19/19 19:03	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-3
Date Collected: 01/18/19 13:40
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-6
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	108		80 - 120		01/19/19 19:03	1
1,2-Dichloroethane-d4 (Surr)	110		77 - 120		01/19/19 19:03	1
4-Bromofluorobenzene (Surr)	101		73 - 120		01/19/19 19:03	1
Dibromofluoromethane (Surr)	107		75 - 123		01/19/19 19:03	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		25	3.3	ug/L		01/21/19 07:56	01/23/19 10:02	5
bis (2-chloroisopropyl) ether	ND		25	2.6	ug/L		01/21/19 07:56	01/23/19 10:02	5
2,4,5-Trichlorophenol	ND		25	2.4	ug/L		01/21/19 07:56	01/23/19 10:02	5
2,4,6-Trichlorophenol	ND		25	3.1	ug/L		01/21/19 07:56	01/23/19 10:02	5
2,4-Dichlorophenol	ND		25	2.6	ug/L		01/21/19 07:56	01/23/19 10:02	5
2,4-Dimethylphenol	ND		25	2.5	ug/L		01/21/19 07:56	01/23/19 10:02	5
2,4-Dinitrophenol	ND		50	11	ug/L		01/21/19 07:56	01/23/19 10:02	5
2,4-Dinitrotoluene	ND		25	2.2	ug/L		01/21/19 07:56	01/23/19 10:02	5
2,6-Dinitrotoluene	ND		25	2.0	ug/L		01/21/19 07:56	01/23/19 10:02	5
2-Chloronaphthalene	ND		25	2.3	ug/L		01/21/19 07:56	01/23/19 10:02	5
2-Chlorophenol	ND		25	2.7	ug/L		01/21/19 07:56	01/23/19 10:02	5
2-Methylphenol	ND		25	2.0	ug/L		01/21/19 07:56	01/23/19 10:02	5
2-Methylnaphthalene	ND		25	3.0	ug/L		01/21/19 07:56	01/23/19 10:02	5
2-Nitroaniline	ND		50	2.1	ug/L		01/21/19 07:56	01/23/19 10:02	5
2-Nitrophenol	ND		25	2.4	ug/L		01/21/19 07:56	01/23/19 10:02	5
3,3'-Dichlorobenzidine	ND		25	2.0	ug/L		01/21/19 07:56	01/23/19 10:02	5
3-Nitroaniline	ND		50	2.4	ug/L		01/21/19 07:56	01/23/19 10:02	5
4,6-Dinitro-2-methylphenol	ND		50	11	ug/L		01/21/19 07:56	01/23/19 10:02	5
4-Bromophenyl phenyl ether	ND		25	2.3	ug/L		01/21/19 07:56	01/23/19 10:02	5
4-Chloro-3-methylphenol	ND		25	2.3	ug/L		01/21/19 07:56	01/23/19 10:02	5
4-Chloroaniline	ND		25	3.0	ug/L		01/21/19 07:56	01/23/19 10:02	5
4-Chlorophenyl phenyl ether	ND		25	1.8	ug/L		01/21/19 07:56	01/23/19 10:02	5
4-Methylphenol	ND		50	1.8	ug/L		01/21/19 07:56	01/23/19 10:02	5
4-Nitroaniline	ND		50	1.3	ug/L		01/21/19 07:56	01/23/19 10:02	5
4-Nitrophenol	ND		50	7.6	ug/L		01/21/19 07:56	01/23/19 10:02	5
Acenaphthene	ND		25	2.1	ug/L		01/21/19 07:56	01/23/19 10:02	5
Acenaphthylene	ND		25	1.9	ug/L		01/21/19 07:56	01/23/19 10:02	5
Acetophenone	ND		25	2.7	ug/L		01/21/19 07:56	01/23/19 10:02	5
Anthracene	ND		25	1.4	ug/L		01/21/19 07:56	01/23/19 10:02	5
Atrazine	ND		25	2.3	ug/L		01/21/19 07:56	01/23/19 10:02	5
Benzaldehyde	ND		25	1.3	ug/L		01/21/19 07:56	01/23/19 10:02	5
Benzo[a]anthracene	ND		25	1.8	ug/L		01/21/19 07:56	01/23/19 10:02	5
Benzo[a]pyrene	ND		25	2.4	ug/L		01/21/19 07:56	01/23/19 10:02	5
Benzo[b]fluoranthene	ND		25	1.7	ug/L		01/21/19 07:56	01/23/19 10:02	5
Benzo[g,h,i]perylene	ND		25	1.8	ug/L		01/21/19 07:56	01/23/19 10:02	5
Benzo[k]fluoranthene	ND		25	3.7	ug/L		01/21/19 07:56	01/23/19 10:02	5
Bis(2-chloroethoxy)methane	ND		25	1.8	ug/L		01/21/19 07:56	01/23/19 10:02	5
Bis(2-chloroethyl)ether	ND		25	2.0	ug/L		01/21/19 07:56	01/23/19 10:02	5
Bis(2-ethylhexyl) phthalate	ND		25	11	ug/L		01/21/19 07:56	01/23/19 10:02	5
Butyl benzyl phthalate	ND		25	5.0	ug/L		01/21/19 07:56	01/23/19 10:02	5
Caprolactam	ND		25	11	ug/L		01/21/19 07:56	01/23/19 10:02	5
Carbazole	ND		25	1.5	ug/L		01/21/19 07:56	01/23/19 10:02	5
Chrysene	ND		25	1.7	ug/L		01/21/19 07:56	01/23/19 10:02	5

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-3
Date Collected: 01/18/19 13:40
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		25	2.1	ug/L		01/21/19 07:56	01/23/19 10:02	5
Di-n-butyl phthalate	ND		25	1.6	ug/L		01/21/19 07:56	01/23/19 10:02	5
Di-n-octyl phthalate	ND		25	2.4	ug/L		01/21/19 07:56	01/23/19 10:02	5
Dibenzofuran	ND		50	2.6	ug/L		01/21/19 07:56	01/23/19 10:02	5
Diethyl phthalate	ND		25	1.1	ug/L		01/21/19 07:56	01/23/19 10:02	5
Dimethyl phthalate	ND		25	1.8	ug/L		01/21/19 07:56	01/23/19 10:02	5
Fluoranthene	ND		25	2.0	ug/L		01/21/19 07:56	01/23/19 10:02	5
Fluorene	ND		25	1.8	ug/L		01/21/19 07:56	01/23/19 10:02	5
Hexachlorobenzene	ND		25	2.6	ug/L		01/21/19 07:56	01/23/19 10:02	5
Hexachlorobutadiene	ND		25	3.4	ug/L		01/21/19 07:56	01/23/19 10:02	5
Hexachlorocyclopentadiene	ND		25	3.0	ug/L		01/21/19 07:56	01/23/19 10:02	5
Hexachloroethane	ND		25	3.0	ug/L		01/21/19 07:56	01/23/19 10:02	5
Indeno[1,2,3-cd]pyrene	ND		25	2.4	ug/L		01/21/19 07:56	01/23/19 10:02	5
Isophorone	ND		25	2.2	ug/L		01/21/19 07:56	01/23/19 10:02	5
N-Nitrosodi-n-propylamine	ND		25	2.7	ug/L		01/21/19 07:56	01/23/19 10:02	5
N-Nitrosodiphenylamine	ND		25	2.6	ug/L		01/21/19 07:56	01/23/19 10:02	5
Naphthalene	ND		25	3.8	ug/L		01/21/19 07:56	01/23/19 10:02	5
Nitrobenzene	ND		25	1.5	ug/L		01/21/19 07:56	01/23/19 10:02	5
Pentachlorophenol	ND		50	11	ug/L		01/21/19 07:56	01/23/19 10:02	5
Phenanthrene	ND		25	2.2	ug/L		01/21/19 07:56	01/23/19 10:02	5
Phenol	ND		25	2.0	ug/L		01/21/19 07:56	01/23/19 10:02	5
Pyrene	ND		25	1.7	ug/L		01/21/19 07:56	01/23/19 10:02	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	75		46 - 120				01/21/19 07:56	01/23/19 10:02	5
Phenol-d5 (Surr)	46		22 - 120				01/21/19 07:56	01/23/19 10:02	5
p-Terphenyl-d14 (Surr)	71		59 - 136				01/21/19 07:56	01/23/19 10:02	5
2,4,6-Tribromophenol (Surr)	78		41 - 120				01/21/19 07:56	01/23/19 10:02	5
2-Fluorobiphenyl	93		48 - 120				01/21/19 07:56	01/23/19 10:02	5
2-Fluorophenol (Surr)	64		35 - 120				01/21/19 07:56	01/23/19 10:02	5

Method: 6010C - Metals (ICP) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	70.0		0.20	0.060	mg/L		01/21/19 08:30	01/21/19 19:44	1
Antimony	ND		0.020	0.0068	mg/L		01/21/19 08:30	01/21/19 19:44	1
Arsenic	0.038		0.015	0.0056	mg/L		01/21/19 08:30	01/21/19 19:44	1
Barium	1.8		0.0020	0.00070	mg/L		01/21/19 08:30	01/21/19 19:44	1
Beryllium	0.0038		0.0020	0.00030	mg/L		01/21/19 08:30	01/21/19 19:44	1
Cadmium	0.0041		0.0020	0.00050	mg/L		01/21/19 08:30	01/21/19 19:44	1
Calcium	758		0.50	0.10	mg/L		01/21/19 08:30	01/21/19 19:44	1
Chromium	0.14		0.0040	0.0010	mg/L		01/21/19 08:30	01/21/19 19:44	1
Cobalt	0.054		0.0040	0.00063	mg/L		01/21/19 08:30	01/21/19 19:44	1
Copper	0.38		0.010	0.0016	mg/L		01/21/19 08:30	01/21/19 19:44	1
Iron	108 B		0.050	0.019	mg/L		01/21/19 08:30	01/21/19 19:44	1
Lead	0.22		0.050	0.015	mg/L		01/21/19 08:30	01/21/19 19:49	5
Magnesium	224		0.20	0.043	mg/L		01/21/19 08:30	01/21/19 19:44	1
Manganese	1.5		0.0030	0.00040	mg/L		01/21/19 08:30	01/21/19 19:44	1
Nickel	0.25		0.010	0.0013	mg/L		01/21/19 08:30	01/21/19 19:44	1
Potassium	38.3		0.50	0.10	mg/L		01/21/19 08:30	01/21/19 19:44	1
Selenium	ND		0.025	0.0087	mg/L		01/21/19 08:30	01/21/19 19:44	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-3
Date Collected: 01/18/19 13:40
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-6
Matrix: Water

Method: 6010C - Metals (ICP) - Total Recoverable (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	ND		0.0060	0.0017	mg/L		01/21/19 08:30	01/21/19 19:44	1
Sodium	1010		5.0	1.6	mg/L		01/21/19 08:30	01/21/19 19:49	5
Thallium	ND		0.020	0.010	mg/L		01/21/19 08:30	01/21/19 19:44	1
Vanadium	0.22		0.0050	0.0015	mg/L		01/21/19 08:30	01/21/19 19:44	1
Zinc	0.67		0.010	0.0015	mg/L		01/21/19 08:30	01/21/19 19:44	1

Method: 6010C - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		01/25/19 10:15	01/25/19 15:53	1
Antimony	ND		0.020	0.0068	mg/L		01/25/19 10:15	01/25/19 15:53	1
Arsenic	ND	^	0.015	0.0056	mg/L		01/25/19 10:15	01/25/19 15:53	1
Barium	0.59		0.0020	0.00070	mg/L		01/25/19 10:15	01/25/19 15:53	1
Beryllium	ND		0.0020	0.00030	mg/L		01/25/19 10:15	01/25/19 15:53	1
Cadmium	ND		0.0020	0.00050	mg/L		01/25/19 10:15	01/25/19 15:53	1
Calcium	371		0.50	0.10	mg/L		01/25/19 10:15	01/25/19 15:53	1
Chromium	ND		0.0040	0.0010	mg/L		01/25/19 10:15	01/25/19 15:53	1
Cobalt	0.0013	J	0.0040	0.00063	mg/L		01/25/19 10:15	01/25/19 15:53	1
Copper	ND		0.010	0.0016	mg/L		01/25/19 10:15	01/25/19 15:53	1
Iron	ND		0.050	0.019	mg/L		01/25/19 10:15	01/25/19 15:53	1
Lead	ND		0.010	0.0030	mg/L		01/25/19 10:15	01/25/19 15:53	1
Magnesium	82.5		0.20	0.043	mg/L		01/25/19 10:15	01/25/19 15:53	1
Manganese	0.26		0.0030	0.00040	mg/L		01/25/19 10:15	01/25/19 15:53	1
Nickel	0.0068	J	0.010	0.0013	mg/L		01/25/19 10:15	01/25/19 15:53	1
Potassium	9.2		0.50	0.10	mg/L		01/25/19 10:15	01/25/19 15:53	1
Selenium	ND		0.025	0.0087	mg/L		01/25/19 10:15	01/25/19 15:53	1
Silver	ND		0.0060	0.0017	mg/L		01/25/19 10:15	01/25/19 15:53	1
Sodium	1040		5.0	1.6	mg/L		01/25/19 10:15	01/25/19 16:30	5
Thallium	ND		0.020	0.010	mg/L		01/25/19 10:15	01/25/19 15:53	1
Vanadium	ND		0.0050	0.0015	mg/L		01/25/19 10:15	01/25/19 15:53	1
Zinc	0.020	B	0.010	0.0015	mg/L		01/25/19 10:15	01/25/19 15:53	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00032		0.00020	0.00012	mg/L		01/21/19 11:55	01/21/19 15:28	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		01/24/19 14:46	01/24/19 17:15	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-148126-7

Date Collected: 01/18/19 00:00

Matrix: Water

Date Received: 01/19/19 01:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/19/19 19:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/19/19 19:26	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/19/19 19:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/19/19 19:26	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/19/19 19:26	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/19/19 19:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/19/19 19:26	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/19/19 19:26	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/19/19 19:26	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/19/19 19:26	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/19/19 19:26	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/19/19 19:26	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/19/19 19:26	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/19/19 19:26	1
2-Hexanone	ND		5.0	1.2	ug/L			01/19/19 19:26	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/19/19 19:26	1
Acetone	ND		10	3.0	ug/L			01/19/19 19:26	1
Benzene	ND		1.0	0.41	ug/L			01/19/19 19:26	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/19/19 19:26	1
Bromoform	ND		1.0	0.26	ug/L			01/19/19 19:26	1
Bromomethane	ND		1.0	0.69	ug/L			01/19/19 19:26	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/19/19 19:26	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/19/19 19:26	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/19/19 19:26	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/19/19 19:26	1
Chloroethane	ND		1.0	0.32	ug/L			01/19/19 19:26	1
Chloroform	ND		1.0	0.34	ug/L			01/19/19 19:26	1
Chloromethane	ND		1.0	0.35	ug/L			01/19/19 19:26	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/19/19 19:26	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/19/19 19:26	1
Cyclohexane	ND		1.0	0.18	ug/L			01/19/19 19:26	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/19/19 19:26	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/19/19 19:26	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/19/19 19:26	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/19/19 19:26	1
Methyl acetate	ND		2.5	1.3	ug/L			01/19/19 19:26	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/19/19 19:26	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/19/19 19:26	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/19/19 19:26	1
Styrene	ND		1.0	0.73	ug/L			01/19/19 19:26	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/19/19 19:26	1
Toluene	ND		1.0	0.51	ug/L			01/19/19 19:26	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/19/19 19:26	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/19/19 19:26	1
Trichloroethene	ND		1.0	0.46	ug/L			01/19/19 19:26	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/19/19 19:26	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/19/19 19:26	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/19/19 19:26	1

TestAmerica Buffalo

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TRIP BLANK

Date Collected: 01/18/19 00:00

Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-7

Matrix: Water

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Toluene-d8 (Surr)	113		80 - 120		01/19/19 19:26	1
1,2-Dichloroethane-d4 (Surr)	116		77 - 120		01/19/19 19:26	1
4-Bromofluorobenzene (Surr)	103		73 - 120		01/19/19 19:26	1
Dibromofluoromethane (Surr)	111		75 - 123		01/19/19 19:26	1

Surrogate Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		TOL (80-120)	DCA (77-120)	BFB (73-120)	DBFM (75-123)
480-148126-1	TW-1	106	111	96	104
480-148126-2	MW-4	108	112	101	113
480-148126-2 MS	MW-4	106	112	98	108
480-148126-2 MSD	MW-4	107	107	99	102
480-148126-3	MW-2	105	107	96	105
480-148126-4	DUPE	105	106	101	101
480-148126-5	TW-2	103	110	99	106
480-148126-6	TW-3	108	110	101	107
480-148126-7	TRIP BLANK	113	116	103	111
LCS 480-455760/5	Lab Control Sample	105	109	100	106
LCS 480-455971/5	Lab Control Sample	103	109	95	105
MB 480-455760/7	Method Blank	114	112	105	116
MB 480-455971/7	Method Blank	107	110	103	112

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		NBZ (46-120)	PHL (22-120)	TPHd14 (59-136)	TBP (41-120)	FBP (48-120)	2FP (35-120)
480-148126-1	TW-1	83	51	79	102	91	62
480-148126-2	MW-4	77	49	101	94	86	65
480-148126-2 MS	MW-4	86	55	96	106	92	66
480-148126-2 MSD	MW-4	89	56	89	106	94	68
480-148126-3	MW-2	83	54	72	95	93	68
480-148126-4	DUPE	90	53	85	101	100	69
480-148126-5	TW-2	93	60	99	106	103	78
480-148126-6	TW-3	75	46	71	78	93	64
LCS 480-455841/2-A	Lab Control Sample	85	55	105	106	90	65
MB 480-455841/1-A	Method Blank	86	53	113	92	94	67

Surrogate Legend

NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHd14 = p-Terphenyl-d14 (Surr)
TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-455760/7

Matrix: Water

Analysis Batch: 455760

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/19/19 15:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/19/19 15:49	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/19/19 15:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/19/19 15:49	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/19/19 15:49	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/19/19 15:49	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/19/19 15:49	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/19/19 15:49	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/19/19 15:49	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/19/19 15:49	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/19/19 15:49	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/19/19 15:49	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/19/19 15:49	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/19/19 15:49	1
2-Hexanone	ND		5.0	1.2	ug/L			01/19/19 15:49	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/19/19 15:49	1
Acetone	ND		10	3.0	ug/L			01/19/19 15:49	1
Benzene	ND		1.0	0.41	ug/L			01/19/19 15:49	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/19/19 15:49	1
Bromoform	ND		1.0	0.26	ug/L			01/19/19 15:49	1
Bromomethane	ND		1.0	0.69	ug/L			01/19/19 15:49	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/19/19 15:49	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/19/19 15:49	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/19/19 15:49	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/19/19 15:49	1
Chloroethane	ND		1.0	0.32	ug/L			01/19/19 15:49	1
Chloroform	ND		1.0	0.34	ug/L			01/19/19 15:49	1
Chloromethane	ND		1.0	0.35	ug/L			01/19/19 15:49	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/19/19 15:49	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/19/19 15:49	1
Cyclohexane	ND		1.0	0.18	ug/L			01/19/19 15:49	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/19/19 15:49	1
Ethylbenzene	ND		1.0	0.74	ug/L			01/19/19 15:49	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/19/19 15:49	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/19/19 15:49	1
Methyl acetate	ND		2.5	1.3	ug/L			01/19/19 15:49	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/19/19 15:49	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/19/19 15:49	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/19/19 15:49	1
Styrene	ND		1.0	0.73	ug/L			01/19/19 15:49	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/19/19 15:49	1
Toluene	ND		1.0	0.51	ug/L			01/19/19 15:49	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/19/19 15:49	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/19/19 15:49	1
Trichloroethene	ND		1.0	0.46	ug/L			01/19/19 15:49	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/19/19 15:49	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/19/19 15:49	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/19/19 15:49	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Toluene-d8 (Surr)	114		80 - 120		01/19/19 15:49	1
1,2-Dichloroethane-d4 (Surr)	112		77 - 120		01/19/19 15:49	1
4-Bromofluorobenzene (Surr)	105		73 - 120		01/19/19 15:49	1
Dibromofluoromethane (Surr)	116		75 - 123		01/19/19 15:49	1

Lab Sample ID: LCS 480-455760/5
Matrix: Water
Analysis Batch: 455760

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
1,1,1-Trichloroethane	25.0	23.8		ug/L		95	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.9		ug/L		100	76 - 120
1,1,2-Trichloroethane	25.0	24.3		ug/L		97	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	27.5		ug/L		110	61 - 148
1,1-Dichloroethane	25.0	24.2		ug/L		97	77 - 120
1,1-Dichloroethene	25.0	24.0		ug/L		96	66 - 127
1,2,4-Trichlorobenzene	25.0	24.0		ug/L		96	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	22.2		ug/L		89	56 - 134
1,2-Dichlorobenzene	25.0	24.3		ug/L		97	80 - 124
1,2-Dichloroethane	25.0	23.8		ug/L		95	75 - 120
1,2-Dichloropropane	25.0	22.7		ug/L		91	76 - 120
1,3-Dichlorobenzene	25.0	24.8		ug/L		99	77 - 120
1,4-Dichlorobenzene	25.0	24.0		ug/L		96	80 - 120
2-Butanone (MEK)	125	132		ug/L		105	57 - 140
2-Hexanone	125	129		ug/L		103	65 - 127
4-Methyl-2-pentanone (MIBK)	125	130		ug/L		104	71 - 125
Acetone	125	135		ug/L		108	56 - 142
Benzene	25.0	24.5		ug/L		98	71 - 124
Bromodichloromethane	25.0	24.2		ug/L		97	80 - 122
Bromoform	25.0	26.7		ug/L		107	61 - 132
Bromomethane	25.0	20.0		ug/L		80	55 - 144
Carbon disulfide	25.0	24.3		ug/L		97	59 - 134
Carbon tetrachloride	25.0	25.0		ug/L		100	72 - 134
Chlorobenzene	25.0	25.0		ug/L		100	80 - 120
Dibromochloromethane	25.0	26.0		ug/L		104	75 - 125
Chloroethane	25.0	22.9		ug/L		92	69 - 136
Chloroform	25.0	24.5		ug/L		98	73 - 127
Chloromethane	25.0	23.3		ug/L		93	68 - 124
cis-1,2-Dichloroethene	25.0	23.9		ug/L		96	74 - 124
cis-1,3-Dichloropropene	25.0	24.3		ug/L		97	74 - 124
Cyclohexane	25.0	25.2		ug/L		101	59 - 135
Dichlorodifluoromethane	25.0	23.4		ug/L		94	59 - 135
Ethylbenzene	25.0	24.5		ug/L		98	77 - 123
1,2-Dibromoethane	25.0	25.2		ug/L		101	77 - 120
Isopropylbenzene	25.0	25.2		ug/L		101	77 - 122
Methyl acetate	50.0	47.9		ug/L		96	74 - 133
Methyl tert-butyl ether	25.0	23.4		ug/L		93	77 - 120
Methylcyclohexane	25.0	25.6		ug/L		103	68 - 134
Methylene Chloride	25.0	24.1		ug/L		97	75 - 124
Styrene	25.0	24.7		ug/L		99	80 - 120
Tetrachloroethene	25.0	26.2		ug/L		105	74 - 122
Toluene	25.0	24.5		ug/L		98	80 - 122
trans-1,2-Dichloroethene	25.0	23.0		ug/L		92	73 - 127

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-455760/5
Matrix: Water
Analysis Batch: 455760

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
trans-1,3-Dichloropropene	25.0	24.8		ug/L		99	80 - 120
Trichloroethene	25.0	23.7		ug/L		95	74 - 123
Trichlorofluoromethane	25.0	24.2		ug/L		97	62 - 150
Vinyl chloride	25.0	23.7		ug/L		95	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	105		80 - 120
1,2-Dichloroethane-d4 (Surr)	109		77 - 120
4-Bromofluorobenzene (Surr)	100		73 - 120
Dibromofluoromethane (Surr)	106		75 - 123

Lab Sample ID: MB 480-455971/7
Matrix: Water
Analysis Batch: 455971

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			01/21/19 20:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			01/21/19 20:59	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			01/21/19 20:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			01/21/19 20:59	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			01/21/19 20:59	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			01/21/19 20:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			01/21/19 20:59	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			01/21/19 20:59	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			01/21/19 20:59	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			01/21/19 20:59	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			01/21/19 20:59	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			01/21/19 20:59	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			01/21/19 20:59	1
2-Butanone (MEK)	ND		10	1.3	ug/L			01/21/19 20:59	1
2-Hexanone	ND		5.0	1.2	ug/L			01/21/19 20:59	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			01/21/19 20:59	1
Acetone	ND		10	3.0	ug/L			01/21/19 20:59	1
Benzene	ND		1.0	0.41	ug/L			01/21/19 20:59	1
Bromodichloromethane	ND		1.0	0.39	ug/L			01/21/19 20:59	1
Bromoform	ND		1.0	0.26	ug/L			01/21/19 20:59	1
Bromomethane	ND		1.0	0.69	ug/L			01/21/19 20:59	1
Carbon disulfide	ND		1.0	0.19	ug/L			01/21/19 20:59	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			01/21/19 20:59	1
Chlorobenzene	ND		1.0	0.75	ug/L			01/21/19 20:59	1
Dibromochloromethane	ND		1.0	0.32	ug/L			01/21/19 20:59	1
Chloroethane	ND		1.0	0.32	ug/L			01/21/19 20:59	1
Chloroform	ND		1.0	0.34	ug/L			01/21/19 20:59	1
Chloromethane	ND		1.0	0.35	ug/L			01/21/19 20:59	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			01/21/19 20:59	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			01/21/19 20:59	1
Cyclohexane	ND		1.0	0.18	ug/L			01/21/19 20:59	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			01/21/19 20:59	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-455971/7
Matrix: Water
Analysis Batch: 455971

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.74	ug/L			01/21/19 20:59	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			01/21/19 20:59	1
Isopropylbenzene	ND		1.0	0.79	ug/L			01/21/19 20:59	1
Methyl acetate	ND		2.5	1.3	ug/L			01/21/19 20:59	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			01/21/19 20:59	1
Methylcyclohexane	ND		1.0	0.16	ug/L			01/21/19 20:59	1
Methylene Chloride	ND		1.0	0.44	ug/L			01/21/19 20:59	1
Styrene	ND		1.0	0.73	ug/L			01/21/19 20:59	1
Tetrachloroethene	ND		1.0	0.36	ug/L			01/21/19 20:59	1
Toluene	ND		1.0	0.51	ug/L			01/21/19 20:59	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			01/21/19 20:59	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			01/21/19 20:59	1
Trichloroethene	ND		1.0	0.46	ug/L			01/21/19 20:59	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			01/21/19 20:59	1
Vinyl chloride	ND		1.0	0.90	ug/L			01/21/19 20:59	1
Xylenes, Total	ND		2.0	0.66	ug/L			01/21/19 20:59	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	107		80 - 120		01/21/19 20:59	1
1,2-Dichloroethane-d4 (Surr)	110		77 - 120		01/21/19 20:59	1
4-Bromofluorobenzene (Surr)	103		73 - 120		01/21/19 20:59	1
Dibromofluoromethane (Surr)	112		75 - 123		01/21/19 20:59	1

Lab Sample ID: LCS 480-455971/5
Matrix: Water
Analysis Batch: 455971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	25.0	22.4		ug/L		89	73 - 126
1,1,1,2-Tetrachloroethane	25.0	24.9		ug/L		100	76 - 120
1,1,2-Trichloroethane	25.0	22.7		ug/L		91	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.7		ug/L		95	61 - 148
1,1-Dichloroethane	25.0	23.7		ug/L		95	77 - 120
1,1-Dichloroethene	25.0	22.0		ug/L		88	66 - 127
1,2,4-Trichlorobenzene	25.0	23.6		ug/L		94	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	22.0		ug/L		88	56 - 134
1,2-Dichlorobenzene	25.0	24.3		ug/L		97	80 - 124
1,2-Dichloroethane	25.0	23.4		ug/L		94	75 - 120
1,2-Dichloropropane	25.0	22.3		ug/L		89	76 - 120
1,3-Dichlorobenzene	25.0	24.0		ug/L		96	77 - 120
1,4-Dichlorobenzene	25.0	23.3		ug/L		93	80 - 120
2-Butanone (MEK)	125	155		ug/L		124	57 - 140
2-Hexanone	125	123		ug/L		99	65 - 127
4-Methyl-2-pentanone (MIBK)	125	129		ug/L		104	71 - 125
Acetone	125	140		ug/L		112	56 - 142
Benzene	25.0	22.9		ug/L		92	71 - 124
Bromodichloromethane	25.0	23.8		ug/L		95	80 - 122

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-455971/5

Matrix: Water

Analysis Batch: 455971

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromoform	25.0	25.2		ug/L		101	61 - 132
Bromomethane	25.0	21.1		ug/L		85	55 - 144
Carbon disulfide	25.0	23.3		ug/L		93	59 - 134
Carbon tetrachloride	25.0	22.8		ug/L		91	72 - 134
Chlorobenzene	25.0	23.3		ug/L		93	80 - 120
Dibromochloromethane	25.0	25.8		ug/L		103	75 - 125
Chloroethane	25.0	21.8		ug/L		87	69 - 136
Chloroform	25.0	24.1		ug/L		96	73 - 127
Chloromethane	25.0	24.9		ug/L		100	68 - 124
cis-1,2-Dichloroethene	25.0	23.8		ug/L		95	74 - 124
cis-1,3-Dichloropropene	25.0	23.5		ug/L		94	74 - 124
Cyclohexane	25.0	21.1		ug/L		85	59 - 135
Dichlorodifluoromethane	25.0	24.3		ug/L		97	59 - 135
Ethylbenzene	25.0	22.8		ug/L		91	77 - 123
1,2-Dibromoethane	25.0	23.0		ug/L		92	77 - 120
Isopropylbenzene	25.0	24.3		ug/L		97	77 - 122
Methyl acetate	50.0	47.2		ug/L		94	74 - 133
Methyl tert-butyl ether	25.0	24.3		ug/L		97	77 - 120
Methylcyclohexane	25.0	22.1		ug/L		88	68 - 134
Methylene Chloride	25.0	25.6		ug/L		102	75 - 124
Styrene	25.0	22.7		ug/L		91	80 - 120
Tetrachloroethene	25.0	24.2		ug/L		97	74 - 122
Toluene	25.0	23.1		ug/L		92	80 - 122
trans-1,2-Dichloroethene	25.0	23.1		ug/L		92	73 - 127
trans-1,3-Dichloropropene	25.0	22.9		ug/L		92	80 - 120
Trichloroethene	25.0	21.8		ug/L		87	74 - 123
Trichlorofluoromethane	25.0	21.3		ug/L		85	62 - 150
Vinyl chloride	25.0	22.8		ug/L		91	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Toluene-d8 (Surr)	103		80 - 120
1,2-Dichloroethane-d4 (Surr)	109		77 - 120
4-Bromofluorobenzene (Surr)	95		73 - 120
Dibromofluoromethane (Surr)	105		75 - 123

Lab Sample ID: 480-148126-2 MS

Matrix: Water

Analysis Batch: 455971

Client Sample ID: MW-4

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	ND	F1	25.0	19.5		ug/L		78	73 - 126
1,1,2,2-Tetrachloroethane	ND		25.0	23.4		ug/L		94	76 - 120
1,1,2-Trichloroethane	ND		25.0	23.6		ug/L		95	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	F1	25.0	16.6		ug/L		66	61 - 148
1,1-Dichloroethane	ND		25.0	21.9		ug/L		88	77 - 120
1,1-Dichloroethene	ND	F1	25.0	18.3		ug/L		73	66 - 127
1,2,4-Trichlorobenzene	ND	F1	25.0	19.8		ug/L		79	79 - 122

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-148126-2 MS

Matrix: Water

Analysis Batch: 455971

Client Sample ID: MW-4

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec. Limits
	Result	Qualifier	Added	Result	Qualifier				
1,2-Dibromo-3-Chloropropane	ND		25.0	22.2		ug/L		89	56 - 134
1,2-Dichlorobenzene	ND		25.0	22.5		ug/L		90	80 - 124
1,2-Dichloroethane	ND		25.0	22.7		ug/L		91	75 - 120
1,2-Dichloropropane	ND		25.0	21.5		ug/L		86	76 - 120
1,3-Dichlorobenzene	ND		25.0	21.7		ug/L		87	77 - 120
1,4-Dichlorobenzene	ND		25.0	21.6		ug/L		86	78 - 124
2-Butanone (MEK)	ND		125	134		ug/L		107	57 - 140
2-Hexanone	ND		125	130		ug/L		104	65 - 127
4-Methyl-2-pentanone (MIBK)	ND		125	138		ug/L		110	71 - 125
Acetone	5.9	J	125	135		ug/L		103	56 - 142
Benzene	0.63	J	25.0	22.5		ug/L		88	71 - 124
Bromodichloromethane	ND		25.0	22.3		ug/L		89	80 - 122
Bromoform	ND		25.0	24.2		ug/L		97	61 - 132
Bromomethane	ND		25.0	20.5		ug/L		82	55 - 144
Carbon disulfide	ND	F2	25.0	20.0		ug/L		80	59 - 134
Carbon tetrachloride	ND	F2 F1	25.0	19.3		ug/L		77	72 - 134
Chlorobenzene	ND		25.0	21.8		ug/L		87	80 - 120
Dibromochloromethane	ND		25.0	23.8		ug/L		95	75 - 125
Chloroethane	ND		25.0	20.6		ug/L		83	69 - 136
Chloroform	ND		25.0	23.2		ug/L		93	73 - 127
Chloromethane	ND		25.0	22.9		ug/L		92	68 - 124
cis-1,2-Dichloroethene	ND		25.0	23.0		ug/L		92	74 - 124
cis-1,3-Dichloropropene	ND		25.0	21.0		ug/L		84	74 - 124
Cyclohexane	1.0	F2 F1	25.0	16.8		ug/L		63	59 - 135
Dichlorodifluoromethane	ND		25.0	18.6		ug/L		74	59 - 135
Ethylbenzene	ND		25.0	21.8		ug/L		87	77 - 123
1,2-Dibromoethane	ND		25.0	24.2		ug/L		97	77 - 120
Isopropylbenzene	ND	F1	25.0	20.6		ug/L		83	77 - 122
Methyl acetate	ND		50.0	47.9		ug/L		96	74 - 133
Methyl tert-butyl ether	35		25.0	55.8		ug/L		82	77 - 120
Methylcyclohexane	0.19	J F1 F2	25.0	16.0	F1	ug/L		63	68 - 134
Methylene Chloride	ND		25.0	24.0		ug/L		96	75 - 124
Styrene	ND		25.0	20.2		ug/L		81	80 - 120
Tetrachloroethene	ND		25.0	20.8		ug/L		83	74 - 122
Toluene	ND		25.0	22.4		ug/L		90	80 - 122
trans-1,2-Dichloroethene	ND		25.0	20.4		ug/L		82	73 - 127
trans-1,3-Dichloropropene	ND		25.0	21.1		ug/L		84	80 - 120
Trichloroethene	ND	F1	25.0	20.0		ug/L		80	74 - 123
Trichlorofluoromethane	ND	F1	25.0	16.7		ug/L		67	62 - 150
Vinyl chloride	ND		25.0	19.6		ug/L		79	65 - 133
		MS MS							
Surrogate	%Recovery	Qualifier	Limits						
<i>Toluene-d8 (Surr)</i>	106		80 - 120						
<i>1,2-Dichloroethane-d4 (Surr)</i>	112		77 - 120						
<i>4-Bromofluorobenzene (Surr)</i>	98		73 - 120						
<i>Dibromofluoromethane (Surr)</i>	108		75 - 123						

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-148126-2 MSD

Matrix: Water

Analysis Batch: 455971

Client Sample ID: MW-4

Prep Type: Total/NA

Analyte	Sample		Spike Added	MSD		Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
	Result	Qualifier		Result	Qualifier						
1,1,1-Trichloroethane	ND	F1	25.0	17.0	F1	ug/L		68	73 - 126	14	15
1,1,2,2-Tetrachloroethane	ND		25.0	24.4		ug/L		98	76 - 120	4	15
1,1,2-Trichloroethane	ND		25.0	23.7		ug/L		95	76 - 122	0	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	F1	25.0	13.7	F1	ug/L		55	61 - 148	19	20
1,1-Dichloroethane	ND		25.0	20.4		ug/L		82	77 - 120	7	20
1,1-Dichloroethene	ND	F1	25.0	15.9	F1	ug/L		63	66 - 127	14	16
1,2,4-Trichlorobenzene	ND	F1	25.0	18.7	F1	ug/L		75	79 - 122	6	20
1,2-Dibromo-3-Chloropropane	ND		25.0	21.7		ug/L		87	56 - 134	2	15
1,2-Dichlorobenzene	ND		25.0	21.2		ug/L		85	80 - 124	6	20
1,2-Dichloroethane	ND		25.0	22.8		ug/L		91	75 - 120	0	20
1,2-Dichloropropane	ND		25.0	21.3		ug/L		85	76 - 120	1	20
1,3-Dichlorobenzene	ND		25.0	20.5		ug/L		82	77 - 120	6	20
1,4-Dichlorobenzene	ND		25.0	20.2		ug/L		81	78 - 124	6	20
2-Butanone (MEK)	ND		125	139		ug/L		111	57 - 140	3	20
2-Hexanone	ND		125	140		ug/L		112	65 - 127	7	15
4-Methyl-2-pentanone (MIBK)	ND		125	140		ug/L		112	71 - 125	2	35
Acetone	5.9	J	125	141		ug/L		108	56 - 142	4	15
Benzene	0.63	J	25.0	21.0		ug/L		82	71 - 124	7	13
Bromodichloromethane	ND		25.0	21.7		ug/L		87	80 - 122	3	15
Bromoform	ND		25.0	24.1		ug/L		96	61 - 132	1	15
Bromomethane	ND		25.0	21.5		ug/L		86	55 - 144	5	15
Carbon disulfide	ND	F2	25.0	16.8	F2	ug/L		67	59 - 134	18	15
Carbon tetrachloride	ND	F2 F1	25.0	15.6	F1 F2	ug/L		63	72 - 134	21	15
Chlorobenzene	ND		25.0	21.1		ug/L		85	80 - 120	3	25
Dibromochloromethane	ND		25.0	24.1		ug/L		96	75 - 125	1	15
Chloroethane	ND		25.0	20.6		ug/L		82	69 - 136	0	15
Chloroform	ND		25.0	21.8		ug/L		87	73 - 127	6	20
Chloromethane	ND		25.0	23.4		ug/L		94	68 - 124	2	15
cis-1,2-Dichloroethene	ND		25.0	21.5		ug/L		86	74 - 124	7	15
cis-1,3-Dichloropropene	ND		25.0	20.9		ug/L		83	74 - 124	1	15
Cyclohexane	1.0	F2 F1	25.0	12.9	F1 F2	ug/L		47	59 - 135	26	20
Dichlorodifluoromethane	ND		25.0	15.7		ug/L		63	59 - 135	17	20
Ethylbenzene	ND		25.0	19.7		ug/L		79	77 - 123	10	15
1,2-Dibromoethane	ND		25.0	24.1		ug/L		97	77 - 120	0	15
Isopropylbenzene	ND	F1	25.0	18.4	F1	ug/L		74	77 - 122	12	20
Methyl acetate	ND		50.0	48.7		ug/L		97	74 - 133	2	20
Methyl tert-butyl ether	35		25.0	54.5		ug/L		77	77 - 120	2	37
Methylcyclohexane	0.19	J F1 F2	25.0	12.1	F1 F2	ug/L		47	68 - 134	28	20
Methylene Chloride	ND		25.0	22.9		ug/L		92	75 - 124	5	15
Styrene	ND		25.0	20.6		ug/L		82	80 - 120	2	20
Tetrachloroethene	ND		25.0	18.6		ug/L		74	74 - 122	11	20
Toluene	ND		25.0	20.3		ug/L		81	80 - 122	10	15
trans-1,2-Dichloroethene	ND		25.0	18.2		ug/L		73	73 - 127	12	20
trans-1,3-Dichloropropene	ND		25.0	21.6		ug/L		87	80 - 120	2	15
Trichloroethene	ND	F1	25.0	18.3	F1	ug/L		73	74 - 123	9	16
Trichlorofluoromethane	ND	F1	25.0	14.7	F1	ug/L		59	62 - 150	12	20
Vinyl chloride	ND		25.0	18.5		ug/L		74	65 - 133	6	15

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-148126-2 MSD
Matrix: Water
Analysis Batch: 455971

Client Sample ID: MW-4
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Toluene-d8 (Surr)	107		80 - 120
1,2-Dichloroethane-d4 (Surr)	107		77 - 120
4-Bromofluorobenzene (Surr)	99		73 - 120
Dibromofluoromethane (Surr)	102		75 - 123

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 480-455841/1-A
Matrix: Water
Analysis Batch: 456111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 455841

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		01/21/19 07:56	01/22/19 23:21	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		01/21/19 07:56	01/22/19 23:21	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		01/21/19 07:56	01/22/19 23:21	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		01/21/19 07:56	01/22/19 23:21	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		01/21/19 07:56	01/22/19 23:21	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		01/21/19 07:56	01/22/19 23:21	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		01/21/19 07:56	01/22/19 23:21	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		01/21/19 07:56	01/22/19 23:21	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		01/21/19 07:56	01/22/19 23:21	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		01/21/19 07:56	01/22/19 23:21	1
2-Chlorophenol	ND		5.0	0.53	ug/L		01/21/19 07:56	01/22/19 23:21	1
2-Methylphenol	ND		5.0	0.40	ug/L		01/21/19 07:56	01/22/19 23:21	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		01/21/19 07:56	01/22/19 23:21	1
2-Nitroaniline	ND		10	0.42	ug/L		01/21/19 07:56	01/22/19 23:21	1
2-Nitrophenol	ND		5.0	0.48	ug/L		01/21/19 07:56	01/22/19 23:21	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		01/21/19 07:56	01/22/19 23:21	1
3-Nitroaniline	ND		10	0.48	ug/L		01/21/19 07:56	01/22/19 23:21	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		01/21/19 07:56	01/22/19 23:21	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		01/21/19 07:56	01/22/19 23:21	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		01/21/19 07:56	01/22/19 23:21	1
4-Chloroaniline	ND		5.0	0.59	ug/L		01/21/19 07:56	01/22/19 23:21	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		01/21/19 07:56	01/22/19 23:21	1
4-Methylphenol	ND		10	0.36	ug/L		01/21/19 07:56	01/22/19 23:21	1
4-Nitroaniline	ND		10	0.25	ug/L		01/21/19 07:56	01/22/19 23:21	1
4-Nitrophenol	ND		10	1.5	ug/L		01/21/19 07:56	01/22/19 23:21	1
Acenaphthene	ND		5.0	0.41	ug/L		01/21/19 07:56	01/22/19 23:21	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/21/19 07:56	01/22/19 23:21	1
Acetophenone	ND		5.0	0.54	ug/L		01/21/19 07:56	01/22/19 23:21	1
Anthracene	ND		5.0	0.28	ug/L		01/21/19 07:56	01/22/19 23:21	1
Atrazine	ND		5.0	0.46	ug/L		01/21/19 07:56	01/22/19 23:21	1
Benzaldehyde	ND		5.0	0.27	ug/L		01/21/19 07:56	01/22/19 23:21	1
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/21/19 07:56	01/22/19 23:21	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/21/19 07:56	01/22/19 23:21	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/21/19 07:56	01/22/19 23:21	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/21/19 07:56	01/22/19 23:21	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/21/19 07:56	01/22/19 23:21	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 480-455841/1-A
Matrix: Water
Analysis Batch: 456111

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 455841

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		01/21/19 07:56	01/22/19 23:21	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		01/21/19 07:56	01/22/19 23:21	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		01/21/19 07:56	01/22/19 23:21	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		01/21/19 07:56	01/22/19 23:21	1
Caprolactam	ND		5.0	2.2	ug/L		01/21/19 07:56	01/22/19 23:21	1
Carbazole	ND		5.0	0.30	ug/L		01/21/19 07:56	01/22/19 23:21	1
Chrysene	ND		5.0	0.33	ug/L		01/21/19 07:56	01/22/19 23:21	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/21/19 07:56	01/22/19 23:21	1
Di-n-butyl phthalate	ND		5.0	0.31	ug/L		01/21/19 07:56	01/22/19 23:21	1
Di-n-octyl phthalate	ND		5.0	0.47	ug/L		01/21/19 07:56	01/22/19 23:21	1
Dibenzofuran	ND		10	0.51	ug/L		01/21/19 07:56	01/22/19 23:21	1
Diethyl phthalate	ND		5.0	0.22	ug/L		01/21/19 07:56	01/22/19 23:21	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		01/21/19 07:56	01/22/19 23:21	1
Fluoranthene	ND		5.0	0.40	ug/L		01/21/19 07:56	01/22/19 23:21	1
Fluorene	ND		5.0	0.36	ug/L		01/21/19 07:56	01/22/19 23:21	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		01/21/19 07:56	01/22/19 23:21	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		01/21/19 07:56	01/22/19 23:21	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		01/21/19 07:56	01/22/19 23:21	1
Hexachloroethane	ND		5.0	0.59	ug/L		01/21/19 07:56	01/22/19 23:21	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/21/19 07:56	01/22/19 23:21	1
Isophorone	ND		5.0	0.43	ug/L		01/21/19 07:56	01/22/19 23:21	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		01/21/19 07:56	01/22/19 23:21	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		01/21/19 07:56	01/22/19 23:21	1
Naphthalene	ND		5.0	0.76	ug/L		01/21/19 07:56	01/22/19 23:21	1
Nitrobenzene	ND		5.0	0.29	ug/L		01/21/19 07:56	01/22/19 23:21	1
Pentachlorophenol	ND		10	2.2	ug/L		01/21/19 07:56	01/22/19 23:21	1
Phenanthrene	ND		5.0	0.44	ug/L		01/21/19 07:56	01/22/19 23:21	1
Phenol	ND		5.0	0.39	ug/L		01/21/19 07:56	01/22/19 23:21	1
Pyrene	ND		5.0	0.34	ug/L		01/21/19 07:56	01/22/19 23:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	86		46 - 120	01/21/19 07:56	01/22/19 23:21	1
Phenol-d5 (Surr)	53		22 - 120	01/21/19 07:56	01/22/19 23:21	1
p-Terphenyl-d14 (Surr)	113		59 - 136	01/21/19 07:56	01/22/19 23:21	1
2,4,6-Tribromophenol (Surr)	92		41 - 120	01/21/19 07:56	01/22/19 23:21	1
2-Fluorobiphenyl	94		48 - 120	01/21/19 07:56	01/22/19 23:21	1
2-Fluorophenol (Surr)	67		35 - 120	01/21/19 07:56	01/22/19 23:21	1

Lab Sample ID: LCS 480-455841/2-A
Matrix: Water
Analysis Batch: 456111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 455841

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Biphenyl	32.0	28.1		ug/L		88	59 - 120
bis (2-chloroisopropyl) ether	32.0	26.5		ug/L		83	21 - 136
2,4,5-Trichlorophenol	32.0	34.2		ug/L		107	65 - 126
2,4,6-Trichlorophenol	32.0	34.2		ug/L		107	64 - 120
2,4-Dichlorophenol	32.0	29.7		ug/L		93	63 - 120

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-455841/2-A

Matrix: Water

Analysis Batch: 456111

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 455841

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dimethylphenol	32.0	27.8		ug/L		87	47 - 120
2,4-Dinitrophenol	64.0	72.1		ug/L		113	31 - 137
2,4-Dinitrotoluene	32.0	33.7		ug/L		105	69 - 120
2,6-Dinitrotoluene	32.0	32.8		ug/L		103	68 - 120
2-Chloronaphthalene	32.0	27.3		ug/L		85	58 - 120
2-Chlorophenol	32.0	26.9		ug/L		84	48 - 120
2-Methylphenol	32.0	27.1		ug/L		85	39 - 120
2-Methylnaphthalene	32.0	27.1		ug/L		85	59 - 120
2-Nitroaniline	32.0	33.1		ug/L		103	54 - 127
2-Nitrophenol	32.0	29.9		ug/L		94	52 - 125
3,3'-Dichlorobenzidine	64.0	49.7		ug/L		78	49 - 135
3-Nitroaniline	32.0	26.0		ug/L		81	51 - 120
4,6-Dinitro-2-methylphenol	64.0	74.1		ug/L		116	46 - 136
4-Bromophenyl phenyl ether	32.0	31.0		ug/L		97	65 - 120
4-Chloro-3-methylphenol	32.0	32.6		ug/L		102	61 - 123
4-Chloroaniline	32.0	24.5		ug/L		77	30 - 120
4-Chlorophenyl phenyl ether	32.0	30.4		ug/L		95	62 - 120
4-Methylphenol	32.0	26.5		ug/L		83	29 - 131
4-Nitroaniline	32.0	33.3		ug/L		104	65 - 120
4-Nitrophenol	64.0	55.4		ug/L		87	45 - 120
Acenaphthene	32.0	28.4		ug/L		89	60 - 120
Acenaphthylene	32.0	29.6		ug/L		92	63 - 120
Acetophenone	32.0	28.6		ug/L		89	45 - 120
Anthracene	32.0	30.3		ug/L		95	67 - 120
Atrazine	64.0	71.3		ug/L		111	71 - 130
Benzaldehyde	64.0	50.9		ug/L		80	10 - 140
Benzo[a]anthracene	32.0	30.6		ug/L		96	70 - 121
Benzo[a]pyrene	32.0	31.7		ug/L		99	60 - 123
Benzo[b]fluoranthene	32.0	33.4		ug/L		104	66 - 126
Benzo[g,h,i]perylene	32.0	32.7		ug/L		102	66 - 150
Benzo[k]fluoranthene	32.0	32.9		ug/L		103	65 - 124
Bis(2-chloroethoxy)methane	32.0	28.5		ug/L		89	50 - 128
Bis(2-chloroethyl)ether	32.0	25.8		ug/L		81	44 - 120
Bis(2-ethylhexyl) phthalate	32.0	32.4		ug/L		101	63 - 139
Butyl benzyl phthalate	32.0	33.7		ug/L		105	70 - 129
Caprolactam	64.0	25.5		ug/L		40	22 - 120
Carbazole	32.0	32.1		ug/L		100	66 - 123
Chrysene	32.0	30.2		ug/L		95	69 - 120
Dibenz(a,h)anthracene	32.0	32.7		ug/L		102	65 - 135
Di-n-butyl phthalate	32.0	31.7		ug/L		99	69 - 131
Di-n-octyl phthalate	32.0	34.6		ug/L		108	63 - 140
Dibenzofuran	32.0	30.4		ug/L		95	66 - 120
Diethyl phthalate	32.0	32.1		ug/L		100	59 - 127
Dimethyl phthalate	32.0	33.6		ug/L		105	68 - 120
Fluoranthene	32.0	30.6		ug/L		96	69 - 126
Fluorene	32.0	31.7		ug/L		99	66 - 120
Hexachlorobenzene	32.0	30.9		ug/L		97	61 - 120
Hexachlorobutadiene	32.0	21.0		ug/L		66	35 - 120

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 480-455841/2-A
Matrix: Water
Analysis Batch: 456111

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 455841

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Hexachlorocyclopentadiene	32.0	17.6		ug/L		55	31 - 120
Hexachloroethane	32.0	20.9		ug/L		65	43 - 120
Indeno[1,2,3-cd]pyrene	32.0	32.0		ug/L		100	69 - 146
Isophorone	32.0	30.2		ug/L		94	55 - 120
N-Nitrosodi-n-propylamine	32.0	28.8		ug/L		90	32 - 140
N-Nitrosodiphenylamine	32.0	32.3		ug/L		101	61 - 120
Naphthalene	32.0	27.3		ug/L		85	57 - 120
Nitrobenzene	32.0	28.1		ug/L		88	53 - 123
Pentachlorophenol	64.0	68.0		ug/L		106	29 - 136
Phenanthrene	32.0	30.3		ug/L		95	68 - 120
Phenol	32.0	18.4		ug/L		58	17 - 120
Pyrene	32.0	30.3		ug/L		95	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5 (Surr)	85		46 - 120
Phenol-d5 (Surr)	55		22 - 120
p-Terphenyl-d14 (Surr)	105		59 - 136
2,4,6-Tribromophenol (Surr)	106		41 - 120
2-Fluorobiphenyl	90		48 - 120
2-Fluorophenol (Surr)	65		35 - 120

Lab Sample ID: 480-148126-2 MS
Matrix: Water
Analysis Batch: 456111

Client Sample ID: MW-4
Prep Type: Total/NA
Prep Batch: 455841

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Biphenyl	ND		32.0	31.2		ug/L		98	57 - 120
bis (2-chloroisopropyl) ether	ND		32.0	27.5		ug/L		86	28 - 121
2,4,5-Trichlorophenol	ND		32.0	36.2		ug/L		113	65 - 126
2,4,6-Trichlorophenol	ND		32.0	35.8		ug/L		112	64 - 120
2,4-Dichlorophenol	ND		32.0	31.0		ug/L		97	48 - 132
2,4-Dimethylphenol	ND		32.0	25.3		ug/L		79	39 - 130
2,4-Dinitrophenol	ND		64.0	87.8		ug/L		137	21 - 150
2,4-Dinitrotoluene	ND		32.0	35.9		ug/L		112	54 - 138
2,6-Dinitrotoluene	ND		32.0	34.4		ug/L		108	17 - 150
2-Chloronaphthalene	ND		32.0	29.0		ug/L		91	52 - 124
2-Chlorophenol	ND		32.0	27.9		ug/L		87	48 - 120
2-Methylphenol	ND		32.0	27.8		ug/L		87	46 - 120
2-Methylnaphthalene	ND		32.0	28.1		ug/L		88	34 - 140
2-Nitroaniline	ND		32.0	25.4		ug/L		79	44 - 136
2-Nitrophenol	ND		32.0	32.1		ug/L		100	38 - 141
3,3'-Dichlorobenzidine	ND	F1 F2	64.0	2.22	J F1	ug/L		3	10 - 150
3-Nitroaniline	ND	F1	32.0	8.20	J F1	ug/L		26	32 - 150
4,6-Dinitro-2-methylphenol	ND		64.0	80.4		ug/L		126	38 - 150
4-Bromophenyl phenyl ether	ND		32.0	32.7		ug/L		102	63 - 126
4-Chloro-3-methylphenol	ND		32.0	34.1		ug/L		106	64 - 127
4-Chloroaniline	ND		32.0	10.8		ug/L		34	16 - 124
4-Chlorophenyl phenyl ether	ND		32.0	32.2		ug/L		101	61 - 120

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-148126-2 MS

Matrix: Water

Analysis Batch: 456111

Client Sample ID: MW-4

Prep Type: Total/NA

Prep Batch: 455841

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
4-Methylphenol	ND		32.0	28.1		ug/L		88	36 - 120
4-Nitroaniline	ND	F1	32.0	9.86	J F1	ug/L		31	32 - 150
4-Nitrophenol	ND		64.0	62.4		ug/L		98	23 - 132
Acenaphthene	ND		32.0	30.0		ug/L		94	48 - 120
Acenaphthylene	ND		32.0	31.0		ug/L		97	63 - 120
Acetophenone	ND		32.0	29.9		ug/L		94	53 - 120
Anthracene	ND		32.0	30.1		ug/L		94	65 - 122
Atrazine	ND		64.0	75.8		ug/L		118	50 - 150
Benzaldehyde	ND		64.0	51.2		ug/L		80	10 - 150
Benzo[a]anthracene	ND		32.0	31.6		ug/L		99	43 - 124
Benzo[a]pyrene	ND		32.0	30.3		ug/L		95	23 - 125
Benzo[b]fluoranthene	ND		32.0	32.9		ug/L		103	27 - 127
Benzo[g,h,i]perylene	ND		32.0	31.5		ug/L		98	16 - 147
Benzo[k]fluoranthene	ND		32.0	32.6		ug/L		102	20 - 124
Bis(2-chloroethoxy)methane	ND		32.0	29.4		ug/L		92	44 - 128
Bis(2-chloroethyl)ether	ND		32.0	28.5		ug/L		89	45 - 120
Bis(2-ethylhexyl) phthalate	ND		32.0	32.9		ug/L		103	16 - 150
Butyl benzyl phthalate	ND		32.0	35.8		ug/L		112	51 - 140
Caprolactam	ND		64.0	25.3		ug/L		40	10 - 120
Carbazole	ND		32.0	34.1		ug/L		107	16 - 148
Chrysene	ND		32.0	31.4		ug/L		98	44 - 122
Dibenz(a,h)anthracene	ND		32.0	31.7		ug/L		99	16 - 139
Di-n-butyl phthalate	ND		32.0	32.6		ug/L		102	65 - 129
Di-n-octyl phthalate	ND		32.0	34.8		ug/L		109	16 - 150
Dibenzofuran	ND		32.0	32.1		ug/L		100	60 - 120
Diethyl phthalate	ND		32.0	33.8		ug/L		106	53 - 133
Dimethyl phthalate	ND		32.0	35.4		ug/L		111	59 - 123
Fluoranthene	ND		32.0	31.9		ug/L		100	63 - 129
Fluorene	ND		32.0	33.4		ug/L		104	62 - 120
Hexachlorobenzene	ND		32.0	31.8		ug/L		99	57 - 121
Hexachlorobutadiene	ND		32.0	22.2		ug/L		70	37 - 120
Hexachlorocyclopentadiene	ND		32.0	19.9		ug/L		62	21 - 120
Hexachloroethane	ND		32.0	22.0		ug/L		69	16 - 130
Indeno[1,2,3-cd]pyrene	ND		32.0	31.2		ug/L		98	16 - 140
Isophorone	ND		32.0	30.7		ug/L		96	48 - 133
N-Nitrosodi-n-propylamine	ND		32.0	30.3		ug/L		95	49 - 120
N-Nitrosodiphenylamine	ND		32.0	33.0		ug/L		103	39 - 138
Naphthalene	ND		32.0	27.2		ug/L		85	45 - 120
Nitrobenzene	ND		32.0	36.7		ug/L		115	45 - 123
Pentachlorophenol	ND		64.0	75.1		ug/L		117	23 - 149
Phenanthrene	ND		32.0	32.4		ug/L		101	65 - 122
Phenol	ND		32.0	18.8		ug/L		59	16 - 120
Pyrene	ND		32.0	32.7		ug/L		102	58 - 128

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5 (Surr)	86		46 - 120
Phenol-d5 (Surr)	55		22 - 120
p-Terphenyl-d14 (Surr)	96		59 - 136

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-148126-2 MS
Matrix: Water
Analysis Batch: 456111

Client Sample ID: MW-4
Prep Type: Total/NA
Prep Batch: 455841

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	106		41 - 120
2-Fluorobiphenyl	92		48 - 120
2-Fluorophenol (Surr)	66		35 - 120

Lab Sample ID: 480-148126-2 MSD
Matrix: Water
Analysis Batch: 456111

Client Sample ID: MW-4
Prep Type: Total/NA
Prep Batch: 455841

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limit	RPD	Limit
Biphenyl	ND		32.0	29.8		ug/L		93	57 - 120	5	20
bis (2-chloroisopropyl) ether	ND		32.0	28.5		ug/L		89	28 - 121	3	24
2,4,5-Trichlorophenol	ND		32.0	36.2		ug/L		113	65 - 126	0	18
2,4,6-Trichlorophenol	ND		32.0	37.0		ug/L		116	64 - 120	3	19
2,4-Dichlorophenol	ND		32.0	32.0		ug/L		100	48 - 132	3	19
2,4-Dimethylphenol	ND		32.0	27.4		ug/L		86	39 - 130	8	42
2,4-Dinitrophenol	ND		64.0	88.2		ug/L		138	21 - 150	0	22
2,4-Dinitrotoluene	ND		32.0	35.5		ug/L		111	54 - 138	1	20
2,6-Dinitrotoluene	ND		32.0	34.4		ug/L		107	17 - 150	0	15
2-Chloronaphthalene	ND		32.0	28.1		ug/L		88	52 - 124	3	21
2-Chlorophenol	ND		32.0	28.7		ug/L		90	48 - 120	3	25
2-Methylphenol	ND		32.0	28.3		ug/L		89	46 - 120	2	27
2-Methylnaphthalene	ND		32.0	27.8		ug/L		87	34 - 140	1	21
2-Nitroaniline	ND		32.0	27.2		ug/L		85	44 - 136	7	15
2-Nitrophenol	ND		32.0	33.1		ug/L		103	38 - 141	3	18
3,3'-Dichlorobenzidine	ND	F1 F2	64.0	3.50	J F1 F2	ug/L		5	10 - 150	45	25
3-Nitroaniline	ND	F1	32.0	9.13	J F1	ug/L		29	32 - 150	11	19
4,6-Dinitro-2-methylphenol	ND		64.0	81.0		ug/L		126	38 - 150	1	15
4-Bromophenyl phenyl ether	ND		32.0	32.2		ug/L		101	63 - 126	1	15
4-Chloro-3-methylphenol	ND		32.0	34.0		ug/L		106	64 - 127	0	27
4-Chloroaniline	ND		32.0	13.1		ug/L		41	16 - 124	19	22
4-Chlorophenyl phenyl ether	ND		32.0	31.5		ug/L		98	61 - 120	2	16
4-Methylphenol	ND		32.0	27.8		ug/L		87	36 - 120	1	24
4-Nitroaniline	ND	F1	32.0	11.3		ug/L		35	32 - 150	14	24
4-Nitrophenol	ND		64.0	60.9		ug/L		95	23 - 132	3	48
Acenaphthene	ND		32.0	29.6		ug/L		92	48 - 120	1	24
Acenaphthylene	ND		32.0	30.9		ug/L		97	63 - 120	0	18
Acetophenone	ND		32.0	30.7		ug/L		96	53 - 120	2	20
Anthracene	ND		32.0	30.3		ug/L		95	65 - 122	1	15
Atrazine	ND		64.0	75.0		ug/L		117	50 - 150	1	20
Benzaldehyde	ND		64.0	52.6		ug/L		82	10 - 150	3	20
Benzo[a]anthracene	ND		32.0	31.0		ug/L		97	43 - 124	2	15
Benzo[a]pyrene	ND		32.0	31.2		ug/L		98	23 - 125	3	15
Benzo[b]fluoranthene	ND		32.0	33.4		ug/L		104	27 - 127	1	15
Benzo[g,h,i]perylene	ND		32.0	32.2		ug/L		101	16 - 147	2	15
Benzo[k]fluoranthene	ND		32.0	32.8		ug/L		102	20 - 124	1	22
Bis(2-chloroethoxy)methane	ND		32.0	30.0		ug/L		94	44 - 128	2	17
Bis(2-chloroethyl)ether	ND		32.0	29.8		ug/L		93	45 - 120	4	21
Bis(2-ethylhexyl) phthalate	ND		32.0	32.8		ug/L		102	16 - 150	0	15

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 480-148126-2 MSD

Matrix: Water

Analysis Batch: 456111

Client Sample ID: MW-4

Prep Type: Total/NA

Prep Batch: 455841

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Butyl benzyl phthalate	ND		32.0	34.8		ug/L		109	51 - 140	3	16
Caprolactam	ND		64.0	24.8		ug/L		39	10 - 120	2	20
Carbazole	ND		32.0	33.7		ug/L		105	16 - 148	1	20
Chrysene	ND		32.0	30.4		ug/L		95	44 - 122	3	15
Dibenz(a,h)anthracene	ND		32.0	32.6		ug/L		102	16 - 139	3	15
Di-n-butyl phthalate	ND		32.0	32.7		ug/L		102	65 - 129	0	15
Di-n-octyl phthalate	ND		32.0	35.0		ug/L		109	16 - 150	1	16
Dibenzofuran	ND		32.0	31.3		ug/L		98	60 - 120	2	15
Diethyl phthalate	ND		32.0	33.7		ug/L		105	53 - 133	0	15
Dimethyl phthalate	ND		32.0	35.2		ug/L		110	59 - 123	1	15
Fluoranthene	ND		32.0	31.5		ug/L		98	63 - 129	1	15
Fluorene	ND		32.0	32.7		ug/L		102	62 - 120	2	15
Hexachlorobenzene	ND		32.0	31.8		ug/L		99	57 - 121	0	15
Hexachlorobutadiene	ND		32.0	20.1		ug/L		63	37 - 120	10	44
Hexachlorocyclopentadiene	ND		32.0	17.9		ug/L		56	21 - 120	11	49
Hexachloroethane	ND		32.0	21.8		ug/L		68	16 - 130	1	46
Indeno[1,2,3-cd]pyrene	ND		32.0	31.7		ug/L		99	16 - 140	1	15
Isophorone	ND		32.0	31.5		ug/L		99	48 - 133	3	17
N-Nitrosodi-n-propylamine	ND		32.0	31.0		ug/L		97	49 - 120	2	31
N-Nitrosodiphenylamine	ND		32.0	32.6		ug/L		102	39 - 138	1	15
Naphthalene	ND		32.0	27.7		ug/L		87	45 - 120	2	29
Nitrobenzene	ND		32.0	39.3		ug/L		123	45 - 123	7	24
Pentachlorophenol	ND		64.0	74.9		ug/L		117	23 - 149	0	37
Phenanthrene	ND		32.0	32.3		ug/L		101	65 - 122	0	15
Phenol	ND		32.0	19.0		ug/L		59	16 - 120	1	34
Pyrene	ND		32.0	31.7		ug/L		99	58 - 128	3	19

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
Nitrobenzene-d5 (Surr)	89		46 - 120
Phenol-d5 (Surr)	56		22 - 120
p-Terphenyl-d14 (Surr)	89		59 - 136
2,4,6-Tribromophenol (Surr)	106		41 - 120
2-Fluorobiphenyl	94		48 - 120
2-Fluorophenol (Surr)	68		35 - 120

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-455768/1-A

Matrix: Water

Analysis Batch: 455999

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 455768

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	ND		0.20	0.060	mg/L		01/21/19 08:30	01/21/19 18:41	1
Antimony	ND		0.020	0.0068	mg/L		01/21/19 08:30	01/21/19 18:41	1
Arsenic	ND		0.015	0.0056	mg/L		01/21/19 08:30	01/21/19 18:41	1
Barium	ND		0.0020	0.00070	mg/L		01/21/19 08:30	01/21/19 18:41	1
Beryllium	ND		0.0020	0.00030	mg/L		01/21/19 08:30	01/21/19 18:41	1
Cadmium	ND		0.0020	0.00050	mg/L		01/21/19 08:30	01/21/19 18:41	1

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-455768/1-A
Matrix: Water
Analysis Batch: 455999

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 455768

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	ND		0.50	0.10	mg/L		01/21/19 08:30	01/21/19 18:41	1
Chromium	ND		0.0040	0.0010	mg/L		01/21/19 08:30	01/21/19 18:41	1
Cobalt	ND		0.0040	0.00063	mg/L		01/21/19 08:30	01/21/19 18:41	1
Copper	ND		0.010	0.0016	mg/L		01/21/19 08:30	01/21/19 18:41	1
Iron	0.0214	J	0.050	0.019	mg/L		01/21/19 08:30	01/21/19 18:41	1
Lead	ND		0.010	0.0030	mg/L		01/21/19 08:30	01/21/19 18:41	1
Magnesium	ND		0.20	0.043	mg/L		01/21/19 08:30	01/21/19 18:41	1
Manganese	ND		0.0030	0.00040	mg/L		01/21/19 08:30	01/21/19 18:41	1
Nickel	ND		0.010	0.0013	mg/L		01/21/19 08:30	01/21/19 18:41	1
Potassium	ND		0.50	0.10	mg/L		01/21/19 08:30	01/21/19 18:41	1
Selenium	ND		0.025	0.0087	mg/L		01/21/19 08:30	01/21/19 18:41	1
Silver	ND		0.0060	0.0017	mg/L		01/21/19 08:30	01/21/19 18:41	1
Sodium	ND		1.0	0.32	mg/L		01/21/19 08:30	01/21/19 18:41	1
Thallium	ND		0.020	0.010	mg/L		01/21/19 08:30	01/21/19 18:41	1
Vanadium	ND		0.0050	0.0015	mg/L		01/21/19 08:30	01/21/19 18:41	1
Zinc	ND		0.010	0.0015	mg/L		01/21/19 08:30	01/21/19 18:41	1

Lab Sample ID: LCS 480-455768/2-A
Matrix: Water
Analysis Batch: 455999

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 455768

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aluminum	10.0	9.19		mg/L		92	80 - 120
Antimony	0.200	0.183		mg/L		91	80 - 120
Arsenic	0.200	0.194		mg/L		97	80 - 120
Barium	0.200	0.188		mg/L		94	80 - 120
Beryllium	0.200	0.197		mg/L		99	80 - 120
Cadmium	0.200	0.185		mg/L		92	80 - 120
Calcium	10.0	9.57		mg/L		96	80 - 120
Chromium	0.200	0.193		mg/L		97	80 - 120
Cobalt	0.200	0.186		mg/L		93	80 - 120
Copper	0.200	0.185		mg/L		93	80 - 120
Iron	10.0	9.56		mg/L		96	80 - 120
Lead	0.200	0.191		mg/L		95	80 - 120
Magnesium	10.0	9.55		mg/L		95	80 - 120
Manganese	0.200	0.191		mg/L		95	80 - 120
Nickel	0.200	0.198		mg/L		99	80 - 120
Potassium	10.0	9.38		mg/L		94	80 - 120
Selenium	0.200	0.190		mg/L		95	80 - 120
Silver	0.0500	0.0478		mg/L		96	80 - 120
Sodium	10.0	9.28		mg/L		93	80 - 120
Thallium	0.200	0.196		mg/L		98	80 - 120
Vanadium	0.200	0.191		mg/L		95	80 - 120
Zinc	0.200	0.216		mg/L		108	80 - 120

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-148126-2 MS

Matrix: Water

Analysis Batch: 455999

Client Sample ID: MW-4

Prep Type: Total Recoverable

Prep Batch: 455768

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	Limits
				Result	Qualifier				
Aluminum	13.9	F2 F1	10.0	25.28		mg/L		114	75 - 125
Antimony	ND		0.200	0.189		mg/L		95	75 - 125
Arsenic	ND		0.200	0.207		mg/L		103	75 - 125
Barium	3.4		0.200	3.42	4	mg/L		33	75 - 125
Beryllium	0.00049	J	0.200	0.195		mg/L		97	75 - 125
Cadmium	ND		0.200	0.190		mg/L		95	75 - 125
Calcium	290	F2	10.0	261.1	4	mg/L		-290	75 - 125
Chromium	0.036	F2	0.200	0.211		mg/L		87	75 - 125
Cobalt	0.0060		0.200	0.194		mg/L		94	75 - 125
Copper	0.019		0.200	0.213		mg/L		97	75 - 125
Iron	15.9	F2 F1 B	10.0	21.98	F1	mg/L		61	75 - 125
Lead	0.017		0.200	0.206		mg/L		95	75 - 125
Magnesium	164	F2	10.0	153.2	4	mg/L		-110	75 - 125
Manganese	0.41	F2 F1	0.200	0.500	F1	mg/L		47	75 - 125
Nickel	0.030		0.200	0.225		mg/L		98	75 - 125
Potassium	13.7	F2 F1	10.0	25.68		mg/L		120	75 - 125
Selenium	ND		0.200	0.195		mg/L		98	75 - 125
Silver	ND		0.0500	0.0492		mg/L		98	75 - 125
Sodium	292		10.0	293.5	4	mg/L		16	75 - 125
Thallium	ND		0.200	0.198		mg/L		99	75 - 125
Vanadium	0.026		0.200	0.216		mg/L		95	75 - 125
Zinc	0.032		0.200	0.224		mg/L		96	75 - 125

Lab Sample ID: 480-148126-2 MSD

Matrix: Water

Analysis Batch: 455999

Client Sample ID: MW-4

Prep Type: Total Recoverable

Prep Batch: 455768

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD		Unit	D	%Rec	Limits	RPD	
				Result	Qualifier					RPD	Limit
Aluminum	13.9	F2 F1	10.0	51.79	F1 F2	mg/L		379	75 - 125	69	20
Antimony	ND		0.200	0.178		mg/L		89	75 - 125	6	20
Arsenic	ND		0.200	0.204		mg/L		102	75 - 125	1	20
Barium	3.4		0.200	3.57	4	mg/L		107	75 - 125	4	20
Beryllium	0.00049	J	0.200	0.189		mg/L		94	75 - 125	3	20
Cadmium	ND		0.200	0.188		mg/L		94	75 - 125	1	20
Calcium	290	F2	10.0	441.1	4 F2	mg/L		1510	75 - 125	51	20
Chromium	0.036	F2	0.200	0.267	F2	mg/L		115	75 - 125	23	20
Cobalt	0.0060		0.200	0.205		mg/L		99	75 - 125	6	20
Copper	0.019		0.200	0.230		mg/L		106	75 - 125	8	20
Iron	15.9	F2 F1 B	10.0	47.47	F1 F2	mg/L		316	75 - 125	73	20
Lead	0.017		0.200	0.228		mg/L		106	75 - 125	10	20
Magnesium	164	F2	10.0	250.1	4 F2	mg/L		860	75 - 125	48	20
Manganese	0.41	F2 F1	0.200	1.04	F1 F2	mg/L		318	75 - 125	70	20
Nickel	0.030		0.200	0.271		mg/L		121	75 - 125	18	20
Potassium	13.7	F2 F1	10.0	35.33	F1 F2	mg/L		216	75 - 125	32	20
Selenium	ND		0.200	0.193		mg/L		97	75 - 125	1	20
Silver	ND		0.0500	0.0496		mg/L		99	75 - 125	1	20
Sodium	292		10.0	295.9	4	mg/L		40	75 - 125	1	20
Thallium	ND		0.200	0.193		mg/L		97	75 - 125	3	20

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-148126-2 MSD
Matrix: Water
Analysis Batch: 455999

Client Sample ID: MW-4
Prep Type: Total Recoverable
Prep Batch: 455768

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits	RPD	
Vanadium	0.026		0.200	0.258		mg/L		116	75 - 125	18	20
Zinc	0.032		0.200	0.268		mg/L		118	75 - 125	18	20

Lab Sample ID: MB 480-456292/1-D
Matrix: Water
Analysis Batch: 456665

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 456618

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	ND		0.20	0.060	mg/L		01/25/19 10:15	01/25/19 14:58	1
Antimony	ND		0.020	0.0068	mg/L		01/25/19 10:15	01/25/19 14:58	1
Arsenic	ND		0.015	0.0056	mg/L		01/25/19 10:15	01/25/19 14:58	1
Barium	ND		0.0020	0.00070	mg/L		01/25/19 10:15	01/25/19 14:58	1
Beryllium	ND		0.0020	0.00030	mg/L		01/25/19 10:15	01/25/19 14:58	1
Cadmium	ND		0.0020	0.00050	mg/L		01/25/19 10:15	01/25/19 14:58	1
Calcium	ND		0.50	0.10	mg/L		01/25/19 10:15	01/25/19 14:58	1
Chromium	ND		0.0040	0.0010	mg/L		01/25/19 10:15	01/25/19 14:58	1
Cobalt	ND		0.0040	0.00063	mg/L		01/25/19 10:15	01/25/19 14:58	1
Copper	ND		0.010	0.0016	mg/L		01/25/19 10:15	01/25/19 14:58	1
Iron	ND		0.050	0.019	mg/L		01/25/19 10:15	01/25/19 14:58	1
Lead	ND		0.010	0.0030	mg/L		01/25/19 10:15	01/25/19 14:58	1
Magnesium	ND		0.20	0.043	mg/L		01/25/19 10:15	01/25/19 14:58	1
Manganese	ND		0.0030	0.00040	mg/L		01/25/19 10:15	01/25/19 14:58	1
Nickel	ND		0.010	0.0013	mg/L		01/25/19 10:15	01/25/19 14:58	1
Potassium	ND		0.50	0.10	mg/L		01/25/19 10:15	01/25/19 14:58	1
Selenium	ND		0.025	0.0087	mg/L		01/25/19 10:15	01/25/19 14:58	1
Silver	ND		0.0060	0.0017	mg/L		01/25/19 10:15	01/25/19 14:58	1
Sodium	ND		1.0	0.32	mg/L		01/25/19 10:15	01/25/19 14:58	1
Thallium	ND		0.020	0.010	mg/L		01/25/19 10:15	01/25/19 14:58	1
Vanadium	ND		0.0050	0.0015	mg/L		01/25/19 10:15	01/25/19 14:58	1
Zinc	0.00511	J	0.010	0.0015	mg/L		01/25/19 10:15	01/25/19 14:58	1

Lab Sample ID: LCS 480-456292/2-D
Matrix: Water
Analysis Batch: 456665

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 456618

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.
		Result	Qualifier				Limits
Aluminum	10.0	9.06		mg/L		91	80 - 120
Antimony	0.200	0.182		mg/L		91	80 - 120
Arsenic	0.200	0.191		mg/L		95	80 - 120
Barium	0.200	0.185		mg/L		93	80 - 120
Beryllium	0.200	0.194		mg/L		97	80 - 120
Cadmium	0.200	0.185		mg/L		93	80 - 120
Calcium	10.0	9.52		mg/L		95	80 - 120
Chromium	0.200	0.192		mg/L		96	80 - 120
Cobalt	0.200	0.184		mg/L		92	80 - 120
Copper	0.200	0.183		mg/L		91	80 - 120
Iron	10.0	9.31		mg/L		93	80 - 120
Lead	0.200	0.189		mg/L		94	80 - 120
Magnesium	10.0	9.40		mg/L		94	80 - 120

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCS 480-456292/2-D
Matrix: Water
Analysis Batch: 456665

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 456618

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Manganese	0.200	0.188		mg/L		94	80 - 120
Nickel	0.200	0.195		mg/L		97	80 - 120
Potassium	10.0	9.20		mg/L		92	80 - 120
Selenium	0.200	0.186		mg/L		93	80 - 120
Silver	0.0500	0.0481		mg/L		96	80 - 120
Sodium	10.0	9.07		mg/L		91	80 - 120
Thallium	0.200	0.192		mg/L		96	80 - 120
Vanadium	0.200	0.188		mg/L		94	80 - 120
Zinc	0.200	0.205		mg/L		103	80 - 120

Lab Sample ID: 480-148126-2 MS
Matrix: Water
Analysis Batch: 456665

Client Sample ID: MW-4
Prep Type: Dissolved
Prep Batch: 456618

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aluminum	ND		10.0	9.70		mg/L		97	75 - 125
Antimony	ND		0.200	0.195		mg/L		97	75 - 125
Arsenic	ND		0.200	0.206	^	mg/L		103	75 - 125
Barium	2.9		0.200	3.12	4	mg/L		96	75 - 125
Beryllium	ND		0.200	0.201		mg/L		100	75 - 125
Cadmium	ND		0.200	0.197		mg/L		99	75 - 125
Calcium	182		10.0	190.4	4	mg/L		88	75 - 125
Chromium	ND		0.200	0.192		mg/L		96	75 - 125
Cobalt	ND		0.200	0.193		mg/L		96	75 - 125
Copper	ND		0.200	0.197		mg/L		98	75 - 125
Iron	ND		10.0	9.46		mg/L		95	75 - 125
Lead	ND		0.200	0.201		mg/L		100	75 - 125
Magnesium	108		10.0	116.6	4	mg/L		86	75 - 125
Manganese	0.058		0.200	0.242		mg/L		92	75 - 125
Nickel	0.0060	J	0.200	0.208		mg/L		101	75 - 125
Potassium	7.9		10.0	18.70		mg/L		108	75 - 125
Selenium	ND		0.200	0.199		mg/L		99	75 - 125
Silver	ND		0.0500	0.0510		mg/L		102	75 - 125
Sodium	288		10.0	298.4	4	mg/L		101	75 - 125
Thallium	ND		0.200	0.199		mg/L		100	75 - 125
Vanadium	ND		0.200	0.195		mg/L		98	75 - 125
Zinc	ND		0.200	0.200		mg/L		100	75 - 125

Lab Sample ID: 480-148126-2 MSD
Matrix: Water
Analysis Batch: 456665

Client Sample ID: MW-4
Prep Type: Dissolved
Prep Batch: 456618

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aluminum	ND		10.0	9.73		mg/L		97	75 - 125	0	20
Antimony	ND		0.200	0.192		mg/L		96	75 - 125	1	20
Arsenic	ND		0.200	0.207	^	mg/L		104	75 - 125	1	20
Barium	2.9		0.200	3.12	4	mg/L		94	75 - 125	0	20
Beryllium	ND		0.200	0.204		mg/L		102	75 - 125	2	20
Cadmium	ND		0.200	0.195		mg/L		98	75 - 125	1	20

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-148126-2 MSD
Matrix: Water
Analysis Batch: 456665

Client Sample ID: MW-4
Prep Type: Dissolved
Prep Batch: 456618

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Calcium	182		10.0	189.5	4	mg/L		79	75 - 125	0	20
Chromium	ND		0.200	0.193		mg/L		96	75 - 125	0	20
Cobalt	ND		0.200	0.194		mg/L		97	75 - 125	0	20
Copper	ND		0.200	0.198		mg/L		99	75 - 125	1	20
Iron	ND		10.0	9.57		mg/L		96	75 - 125	1	20
Lead	ND		0.200	0.203		mg/L		101	75 - 125	1	20
Magnesium	108		10.0	116.0	4	mg/L		80	75 - 125	1	20
Manganese	0.058		0.200	0.244		mg/L		93	75 - 125	1	20
Nickel	0.0060	J	0.200	0.210		mg/L		102	75 - 125	1	20
Potassium	7.9		10.0	18.89		mg/L		110	75 - 125	1	20
Selenium	ND		0.200	0.202		mg/L		101	75 - 125	2	20
Silver	ND		0.0500	0.0513		mg/L		103	75 - 125	1	20
Sodium	288		10.0	297.1	4	mg/L		88	75 - 125	0	20
Thallium	ND		0.200	0.201		mg/L		101	75 - 125	1	20
Vanadium	ND		0.200	0.196		mg/L		98	75 - 125	1	20
Zinc	ND		0.200	0.201		mg/L		100	75 - 125	1	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-455903/1-A
Matrix: Water
Analysis Batch: 455968

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 455903

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.00020	0.00012	mg/L		01/21/19 11:55	01/21/19 15:12	1

Lab Sample ID: LCS 480-455903/2-A
Matrix: Water
Analysis Batch: 455968

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 455903

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
Mercury	0.00667	0.00698		mg/L		105	80 - 120

Lab Sample ID: 480-148126-2 MS
Matrix: Water
Analysis Batch: 455968

Client Sample ID: MW-4
Prep Type: Total/NA
Prep Batch: 455903

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	ND		0.00667	0.00668		mg/L		100	80 - 120

Lab Sample ID: 480-148126-2 MSD
Matrix: Water
Analysis Batch: 455968

Client Sample ID: MW-4
Prep Type: Total/NA
Prep Batch: 455903

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Mercury	ND		0.00667	0.00700		mg/L		105	80 - 120	5	20

TestAmerica Buffalo

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: MB 480-456292/1-B
Matrix: Water
Analysis Batch: 456524

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 456488

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		01/24/19 14:46	01/24/19 17:07	1

Lab Sample ID: LCS 480-456292/2-B
Matrix: Water
Analysis Batch: 456524

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 456488

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.00667	0.00720		mg/L		108	80 - 120

Lab Sample ID: 480-148126-6 MS
Matrix: Water
Analysis Batch: 456524

Client Sample ID: TW-3
Prep Type: Dissolved
Prep Batch: 456488

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Mercury	ND		0.00667	0.00667		mg/L		100	80 - 120

Lab Sample ID: 480-148126-6 MSD
Matrix: Water
Analysis Batch: 456524

Client Sample ID: TW-3
Prep Type: Dissolved
Prep Batch: 456488

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Mercury	ND		0.00667	0.00675		mg/L		101	80 - 120	1	20

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

GC/MS VOA

Analysis Batch: 455760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-1	TW-1	Total/NA	Water	8260C	
480-148126-2	MW-4	Total/NA	Water	8260C	
480-148126-3	MW-2	Total/NA	Water	8260C	
480-148126-4	DUPE	Total/NA	Water	8260C	
480-148126-5	TW-2	Total/NA	Water	8260C	
480-148126-6	TW-3	Total/NA	Water	8260C	
480-148126-7	TRIP BLANK	Total/NA	Water	8260C	
MB 480-455760/7	Method Blank	Total/NA	Water	8260C	
LCS 480-455760/5	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 455971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 480-455971/7	Method Blank	Total/NA	Water	8260C	
LCS 480-455971/5	Lab Control Sample	Total/NA	Water	8260C	
480-148126-2 MS	MW-4	Total/NA	Water	8260C	
480-148126-2 MSD	MW-4	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 455841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-1	TW-1	Total/NA	Water	3510C	
480-148126-2	MW-4	Total/NA	Water	3510C	
480-148126-3	MW-2	Total/NA	Water	3510C	
480-148126-4	DUPE	Total/NA	Water	3510C	
480-148126-5	TW-2	Total/NA	Water	3510C	
480-148126-6	TW-3	Total/NA	Water	3510C	
MB 480-455841/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-455841/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-148126-2 MS	MW-4	Total/NA	Water	3510C	
480-148126-2 MSD	MW-4	Total/NA	Water	3510C	

Analysis Batch: 456111

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-2	MW-4	Total/NA	Water	8270D	455841
MB 480-455841/1-A	Method Blank	Total/NA	Water	8270D	455841
LCS 480-455841/2-A	Lab Control Sample	Total/NA	Water	8270D	455841
480-148126-2 MS	MW-4	Total/NA	Water	8270D	455841
480-148126-2 MSD	MW-4	Total/NA	Water	8270D	455841

Analysis Batch: 456115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-1	TW-1	Total/NA	Water	8270D	455841
480-148126-3	MW-2	Total/NA	Water	8270D	455841
480-148126-4	DUPE	Total/NA	Water	8270D	455841
480-148126-5	TW-2	Total/NA	Water	8270D	455841
480-148126-6	TW-3	Total/NA	Water	8270D	455841

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Metals

Prep Batch: 455768

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-1	TW-1	Total Recoverable	Water	3005A	
480-148126-2	MW-4	Total Recoverable	Water	3005A	
480-148126-3	MW-2	Total Recoverable	Water	3005A	
480-148126-4	DUPE	Total Recoverable	Water	3005A	
480-148126-5	TW-2	Total Recoverable	Water	3005A	
480-148126-6	TW-3	Total Recoverable	Water	3005A	
MB 480-455768/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 480-455768/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
480-148126-2 MS	MW-4	Total Recoverable	Water	3005A	
480-148126-2 MSD	MW-4	Total Recoverable	Water	3005A	

Prep Batch: 455903

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-1	TW-1	Total/NA	Water	7470A	
480-148126-2	MW-4	Total/NA	Water	7470A	
480-148126-3	MW-2	Total/NA	Water	7470A	
480-148126-4	DUPE	Total/NA	Water	7470A	
480-148126-5	TW-2	Total/NA	Water	7470A	
480-148126-6	TW-3	Total/NA	Water	7470A	
MB 480-455903/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-455903/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-148126-2 MS	MW-4	Total/NA	Water	7470A	
480-148126-2 MSD	MW-4	Total/NA	Water	7470A	

Analysis Batch: 455968

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-1	TW-1	Total/NA	Water	7470A	455903
480-148126-2	MW-4	Total/NA	Water	7470A	455903
480-148126-3	MW-2	Total/NA	Water	7470A	455903
480-148126-4	DUPE	Total/NA	Water	7470A	455903
480-148126-5	TW-2	Total/NA	Water	7470A	455903
480-148126-6	TW-3	Total/NA	Water	7470A	455903
MB 480-455903/1-A	Method Blank	Total/NA	Water	7470A	455903
LCS 480-455903/2-A	Lab Control Sample	Total/NA	Water	7470A	455903
480-148126-2 MS	MW-4	Total/NA	Water	7470A	455903
480-148126-2 MSD	MW-4	Total/NA	Water	7470A	455903

Analysis Batch: 455999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-1	TW-1	Total Recoverable	Water	6010C	455768
480-148126-1	TW-1	Total Recoverable	Water	6010C	455768
480-148126-2	MW-4	Total Recoverable	Water	6010C	455768
480-148126-3	MW-2	Total Recoverable	Water	6010C	455768
480-148126-4	DUPE	Total Recoverable	Water	6010C	455768
480-148126-5	TW-2	Total Recoverable	Water	6010C	455768
480-148126-5	TW-2	Total Recoverable	Water	6010C	455768
480-148126-6	TW-3	Total Recoverable	Water	6010C	455768
480-148126-6	TW-3	Total Recoverable	Water	6010C	455768
MB 480-455768/1-A	Method Blank	Total Recoverable	Water	6010C	455768
LCS 480-455768/2-A	Lab Control Sample	Total Recoverable	Water	6010C	455768
480-148126-2 MS	MW-4	Total Recoverable	Water	6010C	455768

TestAmerica Buffalo

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Metals (Continued)

Analysis Batch: 455999 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-2 MSD	MW-4	Total Recoverable	Water	6010C	455768

Analysis Batch: 456170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-3	MW-2	Total Recoverable	Water	6010C	455768
480-148126-4	DUPE	Total Recoverable	Water	6010C	455768

Filtration Batch: 456292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-1	TW-1	Dissolved	Water	FILTRATION	
480-148126-2	MW-4	Dissolved	Water	FILTRATION	
480-148126-3	MW-2	Dissolved	Water	FILTRATION	
480-148126-5	TW-2	Dissolved	Water	FILTRATION	
480-148126-6	TW-3	Dissolved	Water	FILTRATION	
MB 480-456292/1-B	Method Blank	Dissolved	Water	FILTRATION	
MB 480-456292/1-D	Method Blank	Dissolved	Water	FILTRATION	
LCS 480-456292/2-B	Lab Control Sample	Dissolved	Water	FILTRATION	
LCS 480-456292/2-D	Lab Control Sample	Dissolved	Water	FILTRATION	
480-148126-2 MS	MW-4	Dissolved	Water	FILTRATION	
480-148126-2 MSD	MW-4	Dissolved	Water	FILTRATION	
480-148126-6 MS	TW-3	Dissolved	Water	FILTRATION	
480-148126-6 MSD	TW-3	Dissolved	Water	FILTRATION	

Prep Batch: 456488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-1	TW-1	Dissolved	Water	7470A	456292
480-148126-2	MW-4	Dissolved	Water	7470A	456292
480-148126-3	MW-2	Dissolved	Water	7470A	456292
480-148126-5	TW-2	Dissolved	Water	7470A	456292
480-148126-6	TW-3	Dissolved	Water	7470A	456292
MB 480-456292/1-B	Method Blank	Dissolved	Water	7470A	456292
LCS 480-456292/2-B	Lab Control Sample	Dissolved	Water	7470A	456292
480-148126-6 MS	TW-3	Dissolved	Water	7470A	456292
480-148126-6 MSD	TW-3	Dissolved	Water	7470A	456292

Analysis Batch: 456524

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-1	TW-1	Dissolved	Water	7470A	456488
480-148126-2	MW-4	Dissolved	Water	7470A	456488
480-148126-3	MW-2	Dissolved	Water	7470A	456488
480-148126-5	TW-2	Dissolved	Water	7470A	456488
480-148126-6	TW-3	Dissolved	Water	7470A	456488
MB 480-456292/1-B	Method Blank	Dissolved	Water	7470A	456488
LCS 480-456292/2-B	Lab Control Sample	Dissolved	Water	7470A	456488
480-148126-6 MS	TW-3	Dissolved	Water	7470A	456488
480-148126-6 MSD	TW-3	Dissolved	Water	7470A	456488

Prep Batch: 456618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-1	TW-1	Dissolved	Water	3005A	456292
480-148126-2	MW-4	Dissolved	Water	3005A	456292

TestAmerica Buffalo

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Metals (Continued)

Prep Batch: 456618 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-3	MW-2	Dissolved	Water	3005A	456292
480-148126-5	TW-2	Dissolved	Water	3005A	456292
480-148126-6	TW-3	Dissolved	Water	3005A	456292
MB 480-456292/1-D	Method Blank	Dissolved	Water	3005A	456292
LCS 480-456292/2-D	Lab Control Sample	Dissolved	Water	3005A	456292
480-148126-2 MS	MW-4	Dissolved	Water	3005A	456292
480-148126-2 MSD	MW-4	Dissolved	Water	3005A	456292

Analysis Batch: 456665

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-148126-1	TW-1	Dissolved	Water	6010C	456618
480-148126-2	MW-4	Dissolved	Water	6010C	456618
480-148126-3	MW-2	Dissolved	Water	6010C	456618
480-148126-5	TW-2	Dissolved	Water	6010C	456618
480-148126-6	TW-3	Dissolved	Water	6010C	456618
480-148126-6	TW-3	Dissolved	Water	6010C	456618
MB 480-456292/1-D	Method Blank	Dissolved	Water	6010C	456618
LCS 480-456292/2-D	Lab Control Sample	Dissolved	Water	6010C	456618
480-148126-2 MS	MW-4	Dissolved	Water	6010C	456618
480-148126-2 MSD	MW-4	Dissolved	Water	6010C	456618

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-1
Date Collected: 01/18/19 09:46
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		8	455760	01/19/19 17:08	S1V	TAL BUF
Total/NA	Prep	3510C			455841	01/21/19 07:56	JMP	TAL BUF
Total/NA	Analysis	8270D		1	456115	01/23/19 08:05	RJS	TAL BUF
Dissolved	Filtration	FILTRATION			456292	01/23/19 14:03	KMP	TAL BUF
Dissolved	Prep	3005A			456618	01/25/19 10:15	KMP	TAL BUF
Dissolved	Analysis	6010C		1	456665	01/25/19 15:10	AMH	TAL BUF
Total Recoverable	Prep	3005A			455768	01/21/19 08:30	KMP	TAL BUF
Total Recoverable	Analysis	6010C		1	455999	01/21/19 18:48	AMH	TAL BUF
Total Recoverable	Prep	3005A			455768	01/21/19 08:30	KMP	TAL BUF
Total Recoverable	Analysis	6010C		5	455999	01/21/19 18:53	AMH	TAL BUF
Dissolved	Filtration	FILTRATION			456292	01/23/19 14:03	KMP	TAL BUF
Dissolved	Prep	7470A			456488	01/24/19 14:46	BMB	TAL BUF
Dissolved	Analysis	7470A		1	456524	01/24/19 17:10	BMB	TAL BUF
Total/NA	Prep	7470A			455903	01/21/19 11:55	BMB	TAL BUF
Total/NA	Analysis	7470A		1	455968	01/21/19 15:15	BMB	TAL BUF

Client Sample ID: MW-4
Date Collected: 01/18/19 10:35
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455760	01/19/19 17:31	S1V	TAL BUF
Total/NA	Prep	3510C			455841	01/21/19 07:56	JMP	TAL BUF
Total/NA	Analysis	8270D		1	456111	01/23/19 01:18	RJS	TAL BUF
Dissolved	Filtration	FILTRATION			456292	01/23/19 14:03	KMP	TAL BUF
Dissolved	Prep	3005A			456618	01/25/19 10:15	KMP	TAL BUF
Dissolved	Analysis	6010C		1	456665	01/25/19 15:14	AMH	TAL BUF
Total Recoverable	Prep	3005A			455768	01/21/19 08:30	KMP	TAL BUF
Total Recoverable	Analysis	6010C		1	455999	01/21/19 18:57	AMH	TAL BUF
Dissolved	Filtration	FILTRATION			456292	01/23/19 14:03	KMP	TAL BUF
Dissolved	Prep	7470A			456488	01/24/19 14:46	BMB	TAL BUF
Dissolved	Analysis	7470A		1	456524	01/24/19 17:12	BMB	TAL BUF
Total/NA	Prep	7470A			455903	01/21/19 11:55	BMB	TAL BUF
Total/NA	Analysis	7470A		1	455968	01/21/19 15:16	BMB	TAL BUF

Client Sample ID: MW-2
Date Collected: 01/18/19 11:54
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	455760	01/19/19 17:54	S1V	TAL BUF
Total/NA	Prep	3510C			455841	01/21/19 07:56	JMP	TAL BUF
Total/NA	Analysis	8270D		1	456115	01/23/19 08:34	RJS	TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: MW-2
Date Collected: 01/18/19 11:54
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			456292	01/23/19 14:03	KMP	TAL BUF
Dissolved	Prep	3005A			456618	01/25/19 10:15	KMP	TAL BUF
Dissolved	Analysis	6010C		1	456665	01/25/19 15:45	AMH	TAL BUF
Total Recoverable	Prep	3005A			455768	01/21/19 08:30	KMP	TAL BUF
Total Recoverable	Analysis	6010C		1	455999	01/21/19 19:28	AMH	TAL BUF
Total Recoverable	Prep	3005A			455768	01/21/19 08:30	KMP	TAL BUF
Total Recoverable	Analysis	6010C		2	456170	01/22/19 12:46	AMH	TAL BUF
Dissolved	Filtration	FILTRATION			456292	01/23/19 14:03	KMP	TAL BUF
Dissolved	Prep	7470A			456488	01/24/19 14:46	BMB	TAL BUF
Dissolved	Analysis	7470A		1	456524	01/24/19 17:13	BMB	TAL BUF
Total/NA	Prep	7470A			455903	01/21/19 11:55	BMB	TAL BUF
Total/NA	Analysis	7470A		1	455968	01/21/19 15:24	BMB	TAL BUF

Client Sample ID: DUPE
Date Collected: 01/18/19 12:10
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	455760	01/19/19 18:17	S1V	TAL BUF
Total/NA	Prep	3510C			455841	01/21/19 07:56	JMP	TAL BUF
Total/NA	Analysis	8270D		1	456115	01/23/19 09:03	RJS	TAL BUF
Total Recoverable	Prep	3005A			455768	01/21/19 08:30	KMP	TAL BUF
Total Recoverable	Analysis	6010C		1	455999	01/21/19 19:32	AMH	TAL BUF
Total Recoverable	Prep	3005A			455768	01/21/19 08:30	KMP	TAL BUF
Total Recoverable	Analysis	6010C		2	456170	01/22/19 12:50	AMH	TAL BUF
Total/NA	Prep	7470A			455903	01/21/19 11:55	BMB	TAL BUF
Total/NA	Analysis	7470A		1	455968	01/21/19 15:25	BMB	TAL BUF

Client Sample ID: TW-2
Date Collected: 01/18/19 12:55
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455760	01/19/19 18:40	S1V	TAL BUF
Total/NA	Prep	3510C			455841	01/21/19 07:56	JMP	TAL BUF
Total/NA	Analysis	8270D		1	456115	01/23/19 09:33	RJS	TAL BUF
Dissolved	Filtration	FILTRATION			456292	01/23/19 14:03	KMP	TAL BUF
Dissolved	Prep	3005A			456618	01/25/19 10:15	KMP	TAL BUF
Dissolved	Analysis	6010C		1	456665	01/25/19 15:49	AMH	TAL BUF
Total Recoverable	Prep	3005A			455768	01/21/19 08:30	KMP	TAL BUF
Total Recoverable	Analysis	6010C		1	455999	01/21/19 19:36	AMH	TAL BUF
Total Recoverable	Prep	3005A			455768	01/21/19 08:30	KMP	TAL BUF
Total Recoverable	Analysis	6010C		5	455999	01/21/19 19:40	AMH	TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Client Sample ID: TW-2
Date Collected: 01/18/19 12:55
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			456292	01/23/19 14:03	KMP	TAL BUF
Dissolved	Prep	7470A			456488	01/24/19 14:46	BMB	TAL BUF
Dissolved	Analysis	7470A		1	456524	01/24/19 17:14	BMB	TAL BUF
Total/NA	Prep	7470A			455903	01/21/19 11:55	BMB	TAL BUF
Total/NA	Analysis	7470A		1	455968	01/21/19 15:27	BMB	TAL BUF

Client Sample ID: TW-3
Date Collected: 01/18/19 13:40
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455760	01/19/19 19:03	S1V	TAL BUF
Total/NA	Prep	3510C			455841	01/21/19 07:56	JMP	TAL BUF
Total/NA	Analysis	8270D		5	456115	01/23/19 10:02	RJS	TAL BUF
Dissolved	Filtration	FILTRATION			456292	01/23/19 14:03	KMP	TAL BUF
Dissolved	Prep	3005A			456618	01/25/19 10:15	KMP	TAL BUF
Dissolved	Analysis	6010C		1	456665	01/25/19 15:53	AMH	TAL BUF
Dissolved	Filtration	FILTRATION			456292	01/23/19 14:03	KMP	TAL BUF
Dissolved	Prep	3005A			456618	01/25/19 10:15	KMP	TAL BUF
Dissolved	Analysis	6010C		5	456665	01/25/19 16:30	AMH	TAL BUF
Total Recoverable	Prep	3005A			455768	01/21/19 08:30	KMP	TAL BUF
Total Recoverable	Analysis	6010C		1	455999	01/21/19 19:44	AMH	TAL BUF
Total Recoverable	Prep	3005A			455768	01/21/19 08:30	KMP	TAL BUF
Total Recoverable	Analysis	6010C		5	455999	01/21/19 19:49	AMH	TAL BUF
Dissolved	Filtration	FILTRATION			456292	01/23/19 14:03	KMP	TAL BUF
Dissolved	Prep	7470A			456488	01/24/19 14:46	BMB	TAL BUF
Dissolved	Analysis	7470A		1	456524	01/24/19 17:15	BMB	TAL BUF
Total/NA	Prep	7470A			455903	01/21/19 11:55	BMB	TAL BUF
Total/NA	Analysis	7470A		1	455968	01/21/19 15:28	BMB	TAL BUF

Client Sample ID: TRIP BLANK
Date Collected: 01/18/19 00:00
Date Received: 01/19/19 01:00

Lab Sample ID: 480-148126-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	455760	01/19/19 19:26	S1V	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Accreditation/Certification Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Laboratory: TestAmerica Buffalo

The accreditations/certifications listed below are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10026	03-31-19

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Method Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF
5030C	Purge and Trap	SW846	TAL BUF
7470A	Preparation, Mercury	SW846	TAL BUF
FILTRATION	Sample Filtration	None	TAL BUF

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: C&S Engineers, Inc.
Project/Site: Former Zip Zip Mini Mart Site

TestAmerica Job ID: 480-148126-1
SDG: 119.412.009

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-148126-1	TW-1	Water	01/18/19 09:46	01/19/19 01:00
480-148126-2	MW-4	Water	01/18/19 10:35	01/19/19 01:00
480-148126-3	MW-2	Water	01/18/19 11:54	01/19/19 01:00
480-148126-4	DUPE	Water	01/18/19 12:10	01/19/19 01:00
480-148126-5	TW-2	Water	01/18/19 12:55	01/19/19 01:00
480-148126-6	TW-3	Water	01/18/19 13:40	01/19/19 01:00
480-148126-7	TRIP BLANK	Water	01/18/19 00:00	01/19/19 01:00

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10 Hazelwood Drive
Amherst, NY 14228-2298
Phone (716) 691-2600 Fax (716) 691-7991

Client Information Client Contact: Matt Walker Company: C&S Engineers, Inc. Address: 499 Col. Eileen Collins Blvd City: Syracuse State/Zip: NY, 13212 Phone: 315-703-4323(Tel) Email: mwalker@cscoos.com Project Name: Former Zip Mini Mart Site Site:		Lab PM: Stone, Judy L E-Mail: judy.stone@testamericainc.com Camer Tracking No(s): 480-122576-28124.1 Page: Page 1 of 1 Job #:	
Due Date Requested: TAT Requested (days): Standard PO #: Purchase Order Requested WO #:		Analysis Requested Barcode: 480-148126 Chain of Custody Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) Other:	
Sample Identification Sample Date Sample Time Sample Type (C=Comp, G=grab) Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) Preservation Code:		Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8270D - TCL SVOA - OLM04.2 8260C - TCL list OLM04.2 6010C, 7470A 6010C, 7470A 6010C, 7470A Total Number of Containers	
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, (V) Other (specify)		Special Instructions/Note: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: Angelique Aley Date/Time: 1/18/19 14:30 Company: C+S		Received by: [Signature] Date/Time: 1/18/19 14:30 Company: C+S	
Relinquished by: [Signature] Date/Time: 1-18-19, 19:00 Company: Syn		Received by: [Signature] Date/Time: 01/19/19 0100 Company:	
Relinquished by:		Received by:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 1.0 #	



Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-148126-1

SDG Number: 119.412.009

Login Number: 148126

List Number: 1

Creator: Velickovic, Zoran

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	C&S Engineers, Inc.
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	



Appendix D
Date Usability Summary Report